LIST OF APPENDICES

A – IMC Phosphate Company's Section 404 Permit Application

B – List of FLUCFCS Land Use and Cover Classifications

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APPENDIX A
IMC PHOSPHATE COMPANY'S SECTION 404 PERMIT APPLICATION

FORM#: 62-343.900(1)
FORM TITLE: JOINT ENVIRONMENTAL
RESOURCE PERMIT APPLICATION
DATE: October 3, 1995

JOINT APPLICATION FOR ENVIRONMENTAL RESOURCE PERMIT/

AUTHORIZATION TO USE SOVEREIGN SUBMERGED LANDS/

FEDERAL DREDGE AND FILL PERMIT

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION/
WATER MANAGEMENT DISTRICTS/
U.S. ARMY CORPS OF ENGINEERS

INTRODUCTION FOR JOINT APPLICATION FOR ENVIRONMENTAL RESOURCE PERMIT/AUTHORIZATION TO USE STATE OWNED SUBMERGED LANDS/FEDERAL DREDGE AND FILL PERMIT

INTRODUCTION
Attached is a joint application for:

1) activities regulated under Part IV of Chapter 373, F.S.;
2) activities which require authorization to use state owned submerged lands; and
3) activities which require federal dredge and fill permit.

Certain activities may qualify for an exemption. If an activity qualifies for an exemption, an application is not required, although the use of this application form is the most expeditious way for the agencies to make the determination that the activity qualifies for an exemption. Attachment 2 list various regulated activities and the type of permit required for each activity. If you have any questions, please contact the staff of the nearest office of either the Florida Department of Environmental Protection (DEP) or a Water Management District (WMD).

PROCESSING AGENCY/DISTRICT SERVICE CENTERS
The Department of Environmental Protection ("Department" or "DEP") regulates some types of activities, and the Water Management Districts ("WMDs") regulate others. Attachment 1, DEP/WMD Permitting Responsibilities, specifies which activities are regulated by each agency. Environmental Resource Permit Applications shall be made tot he appropriate District/Department office serving the area in which the activity is proposed. Attachment 4 designates the appropriate agency office for each geographic area.

COPIES/APPLICATION FEES
Submit an original signed application form plus four copies of the form, and five complete sets of all the requested drawings and other information to the appropriate DEP or WMD office. Submit the appropriate fee with your application. Application fees are listed in Attachment 3.

DISTRIBUTION TO U.S. ARMY CORPS OF ENGINEERS
When activities are proposed in, on or over wetlands or other surface waters, a portion of the application (Section A and Section C, with the associated drawings) will be forwarded to the Army Corps of Engineers (ACOE) by the reviewing agency. The ACOE will advise you of any additional information that may be required to complete your federal dredge and fill permit application. It is not necessary for the applicant to submit a separate application to the ACOE. The information requested in this application form may be more than required to make a complete application to the ACOE. However, it is useful and may be essential for subsequent evaluation. Reducing unnecessary paperwork and delays is a continuing goal of the ACOE.

DISTRIBUTION TO THE DEP FOR STATE LAND APPROVAL
If the application checks the box to request authorization to use sovereign submerged lands, the Department will begin processing the request for sovereign submerged lands approval. Additionally, if at any time during the processing of the application, it appears that the proposed activities may take place on sovereign submerged lands, the Department will initiate a review for the authorization to use such lands. For an explanation of sovereign submerged lands approval see Attachment 5.

NOTE: The information listed in Sections B, D, E, and F of this application package is not intended to be all-inclusive. Additional information may be requested by the reviewing agency in order to complete your application.

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FOR ERP APPLICATION FORM PACKAGE

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Section A	Basic application form
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Table 1	Project impact summary
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Attachment 5	Proprietary verses regulatory authorization

"What Sections of the Application Must I Fill Out?"

Section:	Noticed General Permits	Individual Permits		
		Single-Family Residences	Others	Mitigation Banks
Section A	Yes	Yes	Yes	Yes
Section B	Yes			
Section C		Yes	Yes	Yes
Section D		Yes		
Section E			Yes	
Section F				Yes
Section G	As Needed	As Needed	As Needed	As Needed

SECTION A

FOR AGENCY USE ONLY	
ACOE Application #	DEP/WMD Application #
Date Application Received	Date Application Received
Proposed Project Lat.	Fee Received $
Proposed Project Long.	Fee Receipt #

PART 1:
Are any of the activities described in this application proposed to occur in, on, or over wetlands or other surface waters?
☒ yes ☐ no
Is this application being filed by or on behalf of a government entity or drainage district? ☐yes ☒no

A. Type of Environmental Resource Permit Requested (check at least one). See Attachment 2 for thresholds and descriptions.

☐ Noticed General - include information requested in Section B.
☐ Standard General (Single Family Dwelling) - include information requested in Sections C and D.
☐ Standard General (all other Standard General projects) - include information requested in Sections C and E.
☐ Individual (Single Family Dwelling) - include information requested in Sections C and D.
☒ Individual (all other Individual projects) - include information requested in Sections C and E.
☐ Conceptual - include information requested in Sections C and E.
☐ Mitigation Bank Permit (construction) - include information requested in Sections C and F. (If the proposed mitigation bank involves the construction of a surface water management system requiring another permit defined above, check the appropriate box and submit the information requested by the applicable section.)
☐ Mitigation Bank (conceptual) - include information requested in Sections C and F.

B. Type of activity for which you are applying (check at least one)

☒ Construction or operation of a new system, other than a solid waste facility, including dredging or filling in, on or over wetlands and other surface waters.
☐ Construction, expansion or modification of a solid waste facility.
☐ Alteration or operation of an existing system which was not previously permitted by a WMD or DEP.
☐ Modification of a system previously permitted by a WMD or DEP.
Provide previous permit numbers:_____

☐ Alteration of a system
☐ Abandonment of a system
☐ Removal of a system
☐ Extension of permit duration
☐ Construction of additional phases of a system

C. Are you requesting authorization to use Sovereign Submerged Lands?
☐yes ☒no
(See Section G and Attachment 5 for more information before answering this question.)

D. For activities in, on,or over wetlands or other surface waters, check type of federal dredge and fill permit requested:
☒Individual ☐Programmatic General ☐General
☐Nationwide ☐Not Applicable

E. Are you claiming to qualify for an exemption? ☐yes ☒no
If yes, provide rule number if known. _____

PART 3: **A. OWNER(S) OF LAND**	**B. ENTITY TO RECEIVE PERMIT (IF OTHER THAN OWNER)**
Name Please see Map C-5 and Table A-1	Name Mr. Robert H. Kinsey
Title and Company	Title and Company Director of Operations Support, IMC Phosphates Company
Address	Address Post Office Box 2000
City, State, Zip	City, State, Zip Mulberry, Florida 33860
Telephone and Fax	Telephone and Fax Phone - (863) 428-2500 Fax - (863) 428-2605
C. AGENT AUTHORIZED TO SECURE PERMIT	**D. CONSULTANT (IF DIFFERENT FROM AGENT)**
Name	Name James E. Poppleton
Title and Company	Title and Company Senior Scientist Environmental Consulting & Technology, Inc.
Address	Address 1408 N. Westshore Blvd., Suite 115
City, State, Zip	City, State, Zip Tampa, Florida 33607
Telephone and Fax	Telephone and Fax Phone - (813) 289-9338 Fax - (813) 289-9388

PART 4: (Please provide metric equivalent for federally funded projects):

A. Name of Project, including phase if applicable: Ona Mine

B. Is this application for part of a multi-phase project?
☐yes ☒no

C. Total applicant-owned area contiguous to the project?
> 31,000 ac.; _____ ha.

D. Total area served by the system: N/A ac.; N/A ha.

E. Impervious area for which a permit is sought: ≤50 ac.; N/A ha.

F. Volume of water that the system is capable of impounding:
N/A ac. ft.; N/A m

G. What is the total area of work in, on, or over wetlands or other surface waters?
2,765 ac.; N/A ha. N/A sq. ft.; N/A sq. m.

H. Total volume of material to be dredged: 264 MM yd; N/A m

I. Number of new boat slips proposed: N/A wet slips; N/A dry slips

PART 5:

Project location (use additional sheets if needed):
County(ies) Hardee

Section(s) 4, 8-20, 22-31, 36	Township 34 South	Range 23 East
Section(s) 14-23, 26-33	Township 34 South	Range 24 East
Section(s) N/A	Township N/A	Range N/A

Land Grant name, if applicable: N/A

Tax Parcel Identification Number: Please refer to Table A-2 and Map C-5

Street AddressRoador other location:State Road 64 and County Road 663

City, Zip Code, if applicable: Ona, Florida 33865

PART 6: Describe in general terms the proposed project, system, or activity.

Please refer to Attachment A-2 for a complete description of the project, the alternatives analysis, Section 404(b)(1) ACOE guidelines evaluation, and a review of public interest issues.

PART 7:

A. If there have been any pre-application meetings, including on-site meetings, with regulatory staff, please list the date(s), location(s), and names of key staff and project representatives.
Please refer to Attachment A-3 for a description of the ecosystem mangaement process.

B. Please identify by number any MSSW/Wetland Resource/ERP/ACOE Permits pending, issued or denied for projects at the location, and any related enforcement actions.

Agency	Date	No.\Type of Application	Action Taken
FDEP	May 8, 2000	ERP	N/A
ACOE	N/A	N/A/no apps .filed	N/A
SWFWMD	N/A	N/A/no apps. filed	N/A

C. Note: The following information is required for projects proposed to occur in, on or over wetlands that need a federal dredge and fill permit or an authorization to use state owned submerged lands. Please provide the names, addresses and zip codes of property owners whose property directly adjoins the project (excluding application) and/or (for proprietary authorizations) is located within a 500 ft. radius of the applicant's land. Please attach a plan view showing the owner's names and adjoining property lines. Attach additional sheets if necessary.

1. 2.
Please refer to Map C-5 and Table A-3
3. 4.

5. 6.

7. 8.

PART 8:

A. By signing this application form, I am applying, or I am applying on behalf of the applicant, for the permit and any proprietary authorizations identified above, according to the supporting data and other incidental information filed with this application. I am familiar with the information contained in this application and represent that such information is true, complete and accurate. I understand this is an application and not a permit, and that work prior to approval is a violation. I understand that this application and any permit issued or proprietary authorization issued pursuant thereto, does not relive me of any obligation for obtaining any other required federal, state, water management district or local permit prior to commencement of construction. I agree, or I agree on behalf of the applicant, to operate and maintain the permitted system unless the permitting agency authorizes transfer of the permit to a responsible operation entity. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Robert H. Kinsey, Director of Operations Support (See Attachment A-7)
Typed/Printed Name of Applicant (If no Agent is used) or Agent (If one is so authorized below)

_____ _____
Signature of Applicant/Agent Date

_____
(Corporate Title if applicable)

AN AGENT MAY SIGN ABOVE ONLY IF THE APPLICANT COMPLETES THE FOLLOWING:

B. I hereby designate and authorize the agent listed above to act on my behalf, or on behalf of my corporation, as the agent in the processing of this application for the permit and/or proprietary authorization indicated above; and to furnish, on request, supplemental information in support of the application. In addition, I authorize the above-listed agent to bind me, or my corporation, to perform any requirements which may be necessary to procure the permit or authorization indicated above. I understand that knowingly making any false statement or representation in this application is a violation of Section 373.430, F.S. and 18 U.S.C. Section 1001.

Not Applicable		
Typed/Printed Name of Applicant	Signature of Applicant	Date

_____
(Corporate Title if applicable)

Please note: The applicant's original signature (not a copy) is required above.

PERSON AUTHORIZING ACCESS TO THE PROPERTY MUST COMPLETE THE FOLLOWING:

C. I either own the property described in this application or I have legal authority to allow access to the property, and I consent, after receiving prior notification, to any site visit on the property by agents or personnel from the Department of Environmental Protection, the Water Management District and the U.S. Army Corps of Engineers necessary for the review and inspection of the proposed project specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review and inspection. Further, I agree to provide entry to the project site for such agents or personnel to monitor permitted work if a permit is granted.

Not Applicable		
Typed/Printed Name of Applicant	Signature of Applicant	Date

_____
(Corporate Title if applicable)

SECTION B

INFORMATION FOR NOTICED GENERAL ENVIRONMENTAL RESOURCE PERMITS

INSTRUCTIONS: To qualify for a Noticed General Permit (NGP) for specific activities, the project must strictly comply with all of the terms, conditions, requirements, limitations and restrictions applicable to the desired NGP. A summary of the types of NGP's available is contained in Attachment 2. Carefully review the rule section of the NGP for which you are applying to ensure that your project meets the requirements of that NGP. Please complete Section A and submit it along with the information required in this Section (on 81/2" x 11" paper).

1. Indicate the project boundaries on a USGS quad map, reduced or enlarged as necessary to legibly show the entire project. If not apparent from the quad map, provide a location map (in sufficient detail to allow a person unfamiliar with the site to find it), containing a north arrow and a graphic scale and showing the boundary of the proposed activity and Section(s), Township(s), and Range(s).

2. A legible site plan showing the following features:

a) property boundaries and dimensions
b) name and location of any adjoining public streets or roads
c) location and dimensions of all existing structures
d) label all impervious and pervious area and indicate their size (area)
e) the direction of drainage relative to the proposed improvements (using arrows)
f) locations of all proposed works
g) permanent and temporary erosion, sedimentation and turbidity controls
h) boundaries of wetlands and other surface waters, identifying open water areas
i) boundary area and volume of all temporary and permanent earthwork, including pre and post construction grades

3. Description of wetland or aquatic habitat .

4. Construction methods and schedule.

5. Additional information that would show that you qualify for the general permit, addressing all the parameters, thresholds and conditions required in the general permit. Errors and omissions will be identified within 30 days by the processing agency.

6. Provide the rule section number of the NGP for which you are applying.

7. The construction plans and supporting calculations must be signed, sealed, and dated by an appropriate registered professional as required by the relevant statutory provisions when the design of the system requires the services of an appropriate registered professional.

SECTION C

Environmental Resource Permit Notice of Receipt of Application

Note: this form does not need to be submitted for noticed general permits.
This information is required in addition to that required in other sections of the application. Please submit five copies of this notice of receipt of application and all attachments with the other required information. Please submit all information on 8 1/2" x 11" paper.

Project Name	Ona Mine
County	Hardee
Owner	IMC Phosphates and Others (Please refer to Table A-1 and Map A-1)
Applicant:	IMC Phosphates
Applicant's Address:	Post Office Box 2000, Mulberry, Florida 33860

1. Indicate the project boundaries on a USGS quadrangle map. Attach a location map showing the boundary of the proposed activity. The map should also contain a north arrow and a graphic scale; show Section(s), Township(s), and Range(s); and must be of sufficient detail to allow a person unfamiliar with the site to find it.

2. Provide the names of all wetlands, or other surface waters that would be dredged, filled, impounded, diverted, drained, or would receive discharge (either directly or indirectly), or would otherwise be impacted by the proposed activity, and specify if they are in an Outstanding Florida Water or Aquatic Preserve:

Please refer to Map C-3 and Attachment C-1. There are no Outstanding Florida Waters or Aquatic Preserves on the Ona Mine project site.

3. Attach a depiction (plan and section views), which clearly shows the works or other facilities proposed to be constructed. Use multiple sheets, if necessary. Use a scale sufficient to show the location and type of works.

4. Briefly describe the proposed project (such as "construct dock with boat shelter", "replace two existing culverts", "construct surface water management system to serve 150 acre residential development"):

Please refer to Attachment C-2.

5. Specify the acreage of wetlands or other surface waters, if any, that are proposed to be filled, excavated, or otherwise disturbed or impacted by the proposed activity:

filled +/- 2,765 ac.; +/- 2,765 excavated ac.;

other impacts N/A ac.

6. Provide a brief statement describing any proposed mitigation for impacts to wetlands and other surface waters (attach additional sheets if necessary):
Please refer to Attachment C-2 for a summary of proposed mitigation and Attachment A-2 for a detailed description.

FOR AGENCY USE ONLY

Application Name:
Application Number:
Office where the application can be inspected:

Note to Notice recipient: The information in this notice has been submitted by the applicant, and has not been verified by the agency. It may be incorrect, incomplete or may be subject to change.

SECTION D

INFORMATION REQUIRED FOR STANDARD GENERAL OR INDIVIDUAL
ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS RELATED
TO A SINGLE FAMILY DWELLING UNIT

Complete this Section only if your project does not qualify for an exemption or noticed general permit. The information requested below is only for projects related to an individual, single family dwelling unit, duplex, triplex, or quadruplex which is not part of a larger common plan of development proposed by the applicant. Please contact the local office of the DEP or WMD if you are unsure whether your project would fit this description.

PLEASE SUBMIT ALL INFORMATION ON 8 1/2" by 11" PAPER

A. SITE INFORMATION

1. Directions: Provide written directions to the property.

2. Specify how the location of the proposed work is marked on site: for example, the center line of the road is flagged, string running between stakes identifies bulkhead location, etc.

B. DRAWINGS

Drawings should be of sufficient detail to clearly show the existing physical conditions of the site, and the extent, type, and location of the proposed activities. The drawings should clearly show waters/wetlands to be impacted, either temporarily or permanently. Any water/wetland areas proposed to be created, enhanced, restored, preserved, or which will remain undisturbed should be clearly identified and labeled. The following drawings are required:

1. PLAN VIEW (TOP VIEW)

This shows the work as viewed from above. A survey of the project site is very useful as a starting point for preparing plan views of the project. Include the following:

a. Applicant name, property line, north arrow and graphic scale or dimensions of proposed work on each drawing sheet.

b. Representative land elevations (spot elevations or contour lines) referred to National Geodetic Vertical Datum (NGVD), as is used on the USGS contour maps.

c. The limits of wetlands and other surface waters and the limits of open water areas in the vicinity of the proposed work. Describe how the wetland limits were determined. If there has ever been a jurisdictional declaratory statement, a formal wetland determination, a formal determination, validated informal determination, or a revalidated jurisdictional determination, provide the identifying number.

d. All proposed work, including dredging, filling or structures. Where possible, differentiate between work in open water, marshes, swamps, or tidal flats and uplands.

e. Show selected water depths in and adjacent to the project site. For dock projects, show water depths at all mooring sites. These depths should be determined at approximate mean low water (MLW) or seasonal low water. Include the approximate tidal range (the difference between approximate mean high water (MHW) elevation and approximate MLW elevation) if the project is in a tidal waterbody.

f. Label all existing structures in wetlands or other surface waters at or adjacent to the proposed activity, such as docks, bulkheads, riprap, or buildings.

g. If dredging or dewatering is involved, show the location of proposed disposal or containment sites. Include any levees, control structures or other methods for retaining or detaining return water. Also include locations of discharge sites where appropriate. (Note that a consumptive or water use permit may be required for dewatering.)

h. For piling supported structures over wetlands or other surface waters, show the entire structure. Indicate the location of any aquatic vegetation in the vicinity of the proposed structure.

i. Show distance between the most waterward point of the proposed facility and the nearest edge of any navigation channel, where appropriate. If the project is on a waterway that has a federally maintained channel, a survey may be required to establish the distance from the waterward points of the structure to the near edge of the federal channel. Also indicate the width of the waterway.

j. Clearly show the locations of all corresponding cross-sectional or profile views on the plan view drawings.

2. CROSS-SECTIONAL AND PROFILE VIEWS

The cross-sectional view should show a "cut-away" end or middle view of the project, while the profile view should show a side view as if cut length-wise. All drawings should include:

a. Applicant name and graphic horizontal and vertical scales or dimensions of the proposed work on each drawing sheet.

b. Show approximate mean or seasonal (high and low) water line elevations referenced to NGVD.

C. PROJECT DETAILS

Provide a detailed description of the proposed project, including the following:

1. The type of activity that is proposed, how the activity will be conducted, construction techniques and sequencing, including equipment to be used, and methods for moving the equipment to and from the site. For projects that involve any dredging or excavation, describe the method of excavation, the type of material to be excavated, and the disposal location for the excavated material. State whether dredged material is to be placed (either temporarily or permanently) in a wetland or other surface water. Indicate the time period any temporary structures will be in place.

2. The acreage (or square footage) of excavation and fill and differentiate between temporary and permanent work.

3. Methods for controlling turbidity (muddy water caused by erosion or work in the water).

4. Methods for stabilizing any slopes that will be created or disturbed during construction, including times expected to elapse before stabilization is performed. Describe both temporary and permanent stabilization methods, such as staked hay bales, temporary grass seed, and permanent sod.

5. If pilings or a seawall are to be installed state whether pilings and seawall slabs are to be installed by jetting or driving.

6. For fill projects, describe the source and type of fill material to be used. For activities that involve the installation of riprap , describe the source, type and size of the rocks, concrete, or other material to be used for the riprap, and how these materials are to be placed. State whether the rocks will be underlain with filter cloth.

SECTION E

INFORMATION REQUESTED FOR STANDARD GENERAL, INDIVIDUAL AND CONCEPTUAL ENVIRONMENTAL RESOURCE PERMIT APPLICATIONS NOT RELATED TO A SINGLE FAMILY DWELLING UNIT

Please provide the information requested below if the proposed project requires either a standard general, individual, or conceptual approval environmental resource permit and is not related to an individual, single family dwelling unit, duplex or quadruplex. The information listed below represents the level of information that is usually required to evaluate an application. The level of information required for a specific project will vary depending on the nature and location of the site and the activity proposed. Conceptual approvals generally do not require the same level of detail as a construction permit. However, providing a greater level of detail will reduce the need to submit additional information at a later date. If an item does not apply to your project, proceed to the next item. Please submit all information that is required by the Department on either 8 1/2 in. X 11 in. paper or 11 in. X 17 in. paper. Larger drawings may be submitted to supplement but not replace these smaller drawings.

I. Site Information

A. Provide a map(s) of the project area and vicinity delineating USDA/SCS soil types.

B. Provide recent aerials, legible for photo interpretation with a scale of 1" = 400 ft, or more detailed, with project boundaries delineated on the aerial.

C. Identify the seasonal high water or mean high tide elevation and normal pool or mean low tide elevation for each on site wetland or surface water, including receiving waters into which runoff will be discharged. Include dates, datum, and methods used to determine these elevations.

D. Identify the wet season high water tables at the locations representative of the entire project site. Include dates, datum, and methods used to determine these elevations.

II. Environmental Considerations

A. Provide results of any wildlife surveys that have been conducted on the site, and provide any comments pertaining to the project from the Florida Game and Fresh Water Fish Commission and the U.S. Fish and Wildlife Service.

B. Provide a description of how water quantity, quality, hydroperiod, and habitat will be maintained in on-site wetlands and other surface waters that will be preserved or will remain undisturbed.

C. Provide a narrative description of any proposed mitigation plans, including purpose, maintenance, monitoring, and construction sequence and techniques, and estimated costs.

D. Describe how boundaries of wetlands or other surface waters were determined. If there has ever been a jurisdictional declaratory statement, a formal wetland determination, a formal determination, a validated informal determination, or a revalidated jurisdictional determination, provide the identifying number.

E. Impact Summary Tables:

1. For all projects, complete Tables 1, 2 and 3 as applicable.

2. For docking facilities or other structures constructed over wetlands or other surface waters, provide the information requested in Table 4.

3. For shoreline stabilization projects, provide the information requested in Table 5.

III. Plans

Provide clear, detailed plans for the system including specifications, plan (overhead) views, cross sections (with the locations of the cross sections shown on the corresponding plan view), and profile (longitudinal) views of the proposed project. The plans must be signed and sealed by a an appropriate registered professional as required by law. Plans must include a scale and a north arrow. These plans should show the following:

A. Project area boundary and total land area, including distances and orientation from roads or other land marks;

B. Existing land use and land cover (acreage and percentages), and on-site natural communities, including wetlands and other surface waters, aquatic communities, and uplands. Use the Florida Land Use Cover & Classification System (FLUCCS)(Level 3) for projects proposed in the South Florida Water Management District, the St. Johns River Water Management District, and the Suwannee River Water Management District and use the National Wetlands Inventory (NWI) for projects proposed in the Southwest Florida Water Management District. Also identify each community with a unique identification number which must be consistent in all exhibits.

C. The existing topography extending at least 100 feet off the project area, and including adjacent wetlands and other surface waters. All topography shall include the location and a description of known benchmarks, referenced to NGVD. For systems waterward of the mean high water (MHW) or seasonal high water lines, show water depths, referenced to mean low water (MLW) in tidal areas or seasonal low water in non-tidal areas, and list the range between MHW and MLW. For docking facilities, indicate the distance to, location of, and depths of the nearest navigational channel and access routes to the channel.

D. If the project is in the known flood plain of a stream or other water course, identify the following: 1) the flood plain boundary and approximate flooding elevations; and 2) the 100-year flood elevation and floodplain boundary of any lake, stream or other watercourse located on or adjacent to the site;

E. The boundaries of wetlands and other surface waters within the project area. Distinguish those wetlands and other surface waters that have been delineated by any binding jurisdictional determination;

F. Proposed land use, land cover and natural communities (acreage and percentages), including wetlands and other surface waters, undisturbed uplands, aquatic communities, impervious surfaces, and water management areas. Use the same classification system and community identification number used in III (B) above.

G. Proposed impacts to wetlands and other surface waters, and any proposed connections/outfalls to other surface waters or wetlands;

H. Proposed buffer zones;

I. Pre- and post-development drainage patterns and basin boundaries showing the direction of flows, including any off-site runoff being routed through or around the system; and connections between wetlands and other surface waters;

J. Location of all water management areas with details of size, side slopes, and designed water depths;

K. Location and details of all water control structures, control elevations, any seasonal water level regulation schedules; and the location and description of benchmarks (minimum of one benchmark per structure);

L. Location, dimensions and elevations of all proposed structures, including docks, seawalls, utility lines, roads, and buildings;

M. Location, size, and design capacity of the internal water management facilities;

N. Rights-of-way and easements for the system, including all on-site and off-site areas to be reserved for water management purposes, and rights-of-way and easements for the existing drainage system, if any;

O. Receiving waters or surface water management systems into which runoff from the developed site will be discharged;

P. Location and details of the erosion, sediment and turbidity control measures to be implemented during each phase of construction and all permanent control measures to be implemented in post-development conditions;

Q. Location, grading, design water levels, and planting details of all mitigation areas;

R. Site grading details, including perimeter site grading;

S. Disposal site for any excavated material, including temporary and permanent disposal sites;

T. Dewatering plan details;

U. For marina facilities, locations of any sewage pumpout facilities, fueling facilities, boat repair and maintenance facilities, and fish cleaning stations;

V. Location and description of any nearby existing offsite features which might be affected by the proposed construction or development such as stormwater management ponds, buildings or other structures, wetlands or other surface waters.

W. For phased projects, provide a master development plan.

IV. Construction Schedule and Techniques

Provide a construction schedule, and a description of construction techniques, sequencing and equipment. This information should specifically include the following:

A. Method for installing any pilings or seawall slabs;

B. Schedule of implementation of temporary or permanent erosion and turbidity control measures;

C. For projects that involve dredging or excavation in wetlands or other surface waters, describe the method of excavation, and the type of material to be excavated;

D. For projects that involve fill in wetlands or other surface waters, describe the source and type of fill material to be used. For shoreline stabilization projects that involve the installation of riprap, state how these materials are to be placed, (i.e., individually or with heavy equipment) and whether the rocks will be underlain with filter cloth;

E. If dewatering is required, detail the dewatering proposal including the methods that are proposed to contain the discharge, methods of isolating dewatering areas, and indicate the period dewatering structures will be in place (Note: a consumptive use or water use permit may by required);

F. Methods for transporting equipment and materials to and from the work site. If barges are required for access, provide the low water depths and draft of the fully loaded barge;

G. Demolition plan for any existing structures to be removed; and

H. Identify the schedule and party responsible for completing monitoring, record drawings, and as-built certifications for the project when completed.

V. Drainage Information

A. Provide pre-development and post-development drainage calculations, signed and sealed by an appropriate registered professional, as follows:

1. Runoff characteristics, including area, runoff curve number or runoff coefficient, and time of concentration for each drainage basin;

2. Water table elevations (normal and seasonal high) including aerial extent and magnitude of any proposed water table draw down;

3. Receiving water elevations (normal, wet season, design storm);

4. Design storms used including rainfall depth, duration, frequency, and distribution;

5. Runoff hydrograph(s) for each drainage basin, for all required design storm event(s);

6. Stage-storage computations for any area such as a reservoir, close basin, detention area, or channel, used in storage routing;

7. Stage-discharge computations for any storage areas at a selected control point, such as control structure or natural restriction;

8. Flood routings through on-site conveyance and storage areas;

9. Water surface profiles in the primary drainage system for each required design storm event(s);

10. Runoff peak rates and volumes discharged from the system for each required design storm event(s);

11. Tail water history and justification (time and elevation); and

12. Pump specifications and operating curves for range of possible operating conditions (if used in system).

B. Provide the results of any percolation tests, where appropriate, and soil borings that are representative of the actual site conditions;

C. Provide the acreage, and percentages of the total project, of the following:

1. Impervious surfaces, excluding wetlands;

2. Pervious surfaces (green areas, not including wetlands);

3. Lakes, canals, retention areas, other open water areas; and

4. Wetlands.

D. Provide an engineering analysis of floodplain storage and conveyance (if applicable), including:

1. Hydraulic calculations for all proposed traversing works;

2. Backwater water surface profiles showing upstream impact of traversing works;

3. Location and volume of encroachment within regulated floodplain(s); and

4. Plan for compensating floodplain storage, if necessary, and calculations required for determining minimum building and road flood elevations.

E. Provide an analysis of the water quality treatment system including:

1. A description of the proposed stormwater treatment methodology that addresses the type of treatment, pollution abatement volumes, and recovery analysis; and

2. Construction plans and calculations that address stage-storage and design elevations, which demonstrate compliance with the appropriate water quality treatment criteria.

F. Provide a description of the engineering methodology, assumptions and references for the parameters listed above, and a copy of all such computations, engineering plans, and specifications used to analyze the system. If a computer program is used for the analysis, provide the name of the program, a description of the program, input and output data, two diskette copies, if available, and justification for model selection.

VI. Operation and Maintenance and Legal Documentation

A. Describe the overall maintenance and operation schedule for the proposed system.

B. Identify the entity that will be responsible for operating and maintaining the system in perpetuity if different than the permittee, a draft document enumerating the enforceable affirmative obligations on the entity to properly operate and maintain the system for its expected life, and documentation of the entity's financial responsibility for long-term maintenance. If the proposed operation and maintenance entity is not a property owner's association, provide proof of the existence of an entity, or the future acceptance of the system by an entity which will operate and maintain the system. If a property owner's association is the proposed operation and maintenance entity, provide copies of the articles of incorporation for the association and copies of the declaration, restrictive covenants, deed restrictions, or other operational documents that assign responsibility for the operation and maintenance of the system. Provide information ensuring the continued adequate access to the system for maintenance purposes. Before transfer of the system to the operating entity will be approved, the permittee must document that the transferee will be bound by all terms and conditions of the permit.

C. Provide copies of all proposed conservation easements, storm water management system easements, property owner's association documents, and plats for the property containing the proposed system.

D. Provide indication of how water and waste water service will be supplied. Letters of commitment from off-site suppliers must be included.

E. Provide a copy of the boundary survey and/or legal description and acreage of the total land area of contiguous property owned/controlled by the applicant.

VII. Water Use

A. Will the surface water system be used for water supply, including landscape irrigation, or recreation.

B. If a Consumptive Use or Water Use permit has been issued for the project, state the permit number.

C. If no Consumptive Use or Water Use permit has been issued for the project, indicate if such a permit will be required and when the application for a permit will be submitted.

D. Indicate how any existing wells located within the project site will be utilized or abandoned.

TABLE 1
Project Impact Summary

WL & SW ID	WL & SW TYPE	WL & SW SIZE (ac.) ON SITE	WL & SW ACRES NOT IMPACTED	PERMANENT IMPACTS TO WL & SW		TEMPORARY IMPACTS TO WL & SW		MITIGATION ID
				IMPACT SIZE (acres)	IMPACT CODE	IMPACT SIZE (acres)	IMPACT CODE	

WL = Wetland; **SW** = Surface water; **ID** = Identification number, letter, etc.
Wetland Type: Use an established wetland classification system and, in the comments section below, indicate which classification system is being used.
Impact Code (Type): D = dredge; F = fill; H = change hydrology; S = shading; C = clearing; O = other. Indicate the final impact if more than one impact type is proposed in a given area. For example, show F only for an area that will first be demucked and then backfilled.

Note: Multiple entries per cell are not allowed, except in the "Mitigation ID" column. Any given acreage of wetland should be listed in one row only, such that the total of all rows equals the project total for a given category (column). For example, if Wetland No. 1 includes multiple wetland types and multiple impact codes are proposed in each type, then each proposed impact in each wetland type should be shown on a separate row, while the size of each wetland type found in Wetland No. 1 should be listed in only one row.

Comments: _____

TABLE 2
ON-SITE MITIGATION SUMMARY

MITIGATION ID	CREATION		RESTORATION		ENHANCEMENT		WETLAND PRESERVE		UPLAND PRESERVE		OTHER	
	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE
PROJECT TOTALS:												

CODES (multiple entries per cell not allowed): Target Type or Type = target or existing habitat type from an established wetland classification system or land use classification for non-wetland mitigation

COMMENTS:

TABLE 3
OFF-SITE MITIGATION SUMMARY

MITIGATION ID	CREATION		RESTORATION		ENHANCEMENT		WETLAND PRESERVE		UPLAND PRESERVE		OTHER	
	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE	AREA	TARGET TYPE
Not Applicable												
PROJECT TOTALS:												

CODES (multiple entries per cell not allowed):

Target Type=target or existing habitat type from an established wetland classification system or land use classification for non-wetland mitigation

TABLE 4
DOCKING FACILITY SUMMARY

Type of Structure*	Type of Work**	Number of Identical Docks	Length (feet)	Width (feet)	Height (feet)	Total square feet over water	Number of slips
Not Applicable							

	TOTALS:	Existing	Proposed
*Dock, Pier, Finger Pier, or other structure (please specify what type)	Number of Slips		
**New, Replaced, Existing (unaltered), Removed, or Altered/Modified	Square Feet over the water		

Use of Structure:

Will the docking facility provide:

Live-aboard Slips? If yes, Number:
Fueling Facilities: If yes, Number
Sewage Pump-out Facilities? If yes, Number:
Other Supplies or Services Required for Boating (excluding refreshments, bait and tackle)
☐ Yes ☐ No

Type of Materials for Decking and Pilings (i.e., CCA, pressure treated wood, plastic, or concrete)

Pilings
Decking
Proposed Dock-Plank Spacing (if applicable)

Proposed Size (length and draft), Type, and Number of Boats Expected to Use or Proposed to be Mooring at the facility)

Table 5: SHORELINE STABILIZATION
IF YOU ARE CONSTRUCTING A SHORELINE STABILIZATION PROJECT, PLEASE PROVIDE THE FOLLOWING:

Type of Stabilization Being Done	Length (in feet) of New	Length (in feet) of Replaced	Length (in feet) of Repaired	Length (in feet) of Removed	Slope: H: V:	Width of the Toe (in feet)
Vertical Seawall	Not Applicable					
Seawall plus Rip-Rap						
Rip-Rap						
Rip-Rap plus Vegetation						
Other Type of Stabilization Being Done:						

Size of the Rip Rap: _____

Type of Rip Rap:_____

COMMENTS:

SECTION F
Information for Mitigation Banks

Please provide the information requested below if you are applying for a mitigation bank permit or a mitigation bank conceptual approval.

A. General Site Conditions. Provide the following:

1. A map, at regional scale, of the mitigation bank in relation to the regional watershed and proposed mitigation service area.

2. A vicinity map showing the mitigation bank in relation to adjacent lands and off-site areas of ecological or hydrologic significance which could affect the long term viability or ecological value of the bank;

3. A recent aerial photo of the mitigation bank (no photocopies) identifying boundaries of the project area;

4. A highway map showing points of access to the mitigation bank for site inspection;

5. A legal description of the proposed mitigation bank;

6. A description and assessment of current site conditions including:

(a) a soils map of the mitigation bank site;
(b) a topographic map of the mitigation bank site and adjacent hydrologic contributing and receiving areas;
(c) a hydrologic features map of the mitigation bank and adjacent hydrologic contributing and receiving areas;
(d) current hydrologic conditions in the mitigation bank site;
(e) a vegetation map of the mitigation bank site;
(f) ecological benefits currently provided to the regional watershed by the mitigation bank site;
(g) adjacent lands, including existing land uses and conditions, projected land uses according to comprehensive plans adopted pursuant to Chapter 163, F.S., by local governments having jurisdiction, and any special designations or classifications associated with adjacent lands or waters;
(h) a disclosure statement of any material fact which may affect the contemplated use of the property; and
(i) a Phase I environmental audit of the property (not required for a Conceptual Approval).

B. Mitigation Bank Information

1. A description of the ecological significance of the proposed mitigation bank to the regional watershed in which it is located.

2. A mitigation plan describing the actions proposed to establish, construct, operate, manage and maintain the mitigation bank including:

(a) construction-level drawings detailing proposed topographic alterations and all structural components associated with proposed activities (not required for a Conceptual Approval);
(b) proposed construction activities, including a detailed schedule for implementation (not required for a Conceptual Approval);
(c) the proposed vegetation planting scheme and detailed schedule for implementation;
(d) measures to be implemented during and after construction to avoid adverse impacts related to proposed activities;
(e) a detailed long-term management plan comprising all aspects of operation and maintenance, including water management practices, vegetation establishment, exotic and nuisance species control, fire management, and control of access; and
(f) a proposed monitoring plan to demonstrate mitigation success.

3. An assessment of improvement or changes in ecological value anticipated as a result of proposed mitigation actions including:

(a) a description of anticipated site conditions in the mitigation bank after the mitigation plan is successfully implemented;
(b) a comparison of current fish and wildlife habitat to expected habitat after the mitigation plan is successfully implemented; and
(c) a description of the expected ecological benefits to the regional watershed.

4. Evidence of sufficient legal or equitable interest in the property which is to become the mitigation bank to meet the requirements of the Applicant's Handbook / Basis of Review (not required for a Conceptual Approval).

5. Draft documentation of financial responsibility meeting the requirements of the Applicant's Handbook / Basis of Review (not required for a Conceptual Approval).

6. Any engineering calculations and/or computer modeling (such as hydrograph or staging) needed to assess the effects of the project on the hydrologic characteristics of the mitigation bank site and upstream and downstream areas.

SECTION G

Application for Authorization to Use Sovereign Submerged Lands

Part 1: Sovereign Submerged Lands title information (see Attachment 5 for an explanation). Please read and answer the applicable questions listed below:

A. I have a sovereign submerged lands title determination from the Division of State Lands which indicates that the proposed project is NOT ON sovereign submerged lands (Please attach a copy of the title determination to the application). Yes☐ No☐

- If you answered Yes to Question A and you have attached a copy of the Division of State Lands Title Determination to this application, you do not have to answer any other questions under Part I or II of Section G.

B. I have a sovereign submerged lands title determination from the Division of State Lands which indicates that the proposed project is ON sovereign submerged lands (Please attach a copy of the title determination to the application).
Yes☐ No☐

- If you answered yes to question B please provide the information requested in Part II. Your application will be deemed incomplete until the requested information is submitted.

C. I am not sure if the proposed project is on sovereign submerged lands (please check here). ☐

- If you have checked this box department staff will request that the Division of State Lands conduct a title determination. If the title determination indicates that the proposed project or portions of the project are located on sovereign submerged lands you will be required to submit the information requested in Part II of this application. The application will be deemed incomplete until the requested information is submitted.

D. I am not sure if the proposed project is on sovereign submerged lands and I DO NOT WISH to contest the Department's findings (please check here). ☐

- If you have checked this box refer to Part II of this application and provide the requested information. The application will be deemed incomplete until the requested information is submitted.

E. It is my position that the proposed project is NOT on sovereign submerged lands (please check here)☐

- If you have evidence that indicates that the proposed project is not on sovereign submerged lands please attach the documentation to the application. If the Division of State Lands title determination indicates that your proposed project or portion of your proposed project are on sovereign submerged lands you will be required to provide the information requested in Part II of this application.

F. If you wish to contest the findings of the title determination conducted by the Division of State Lands please contact the Department of Environmental Protection's Office of General Counsel. Your proposed project will be deemed incomplete until either the information requested in Part II is submitted or a legal ruling indicates that the proposed project is not on sovereign submerged lands.

Part II: If you were referred to this section by Part I, please provide this additional information. Please note that if your proposed project is on sovereign submerged lands and the below requested information is not provided, your application will be considered incomplete.

A. Provide evidence of title to the subject riparian upland property in the form of a recorded deed, title insurance, legal opinion of title, or a long-term lease which specifically includes riparian rights. Evidence submitted must demonstrate that the application has sufficient title interest in the riparian upland property.

B. Provide a detailed statement describing the existing and proposed upland uses and activities. For commercial uses, indicate the specific type of activity, such as marina, ship repair, dry storage (including the number of storage

spaces), commercial fishing/seafood processing, fish camp, hotel, motel resort restaurant, office complex, manufacturing operation, etc.

For rental operations, such as trailer or recreational vehicle parks and apartment complexes, indicate the number of wet slip units/spaces available for rent or lease and describe operational details (e.g., are spaces rented on a month-to-month basis or through annual leases).

For multi-family residential developments, such as condominiums, townhomes, or subdivisions, provide the number of living units/lots and indicate whether or not the common property (including the riparian upland property) is or will be under the control of a homeowners association.

For projects sponsored by a local government, indicate whether or not the facilities will be open to the general public. Provide a breakdown of any fees that will be assessed, and indicate whether or not such fees will generate revenue or will simply cover costs associates with maintaining the facilities.

C. Provide a detailed statement describing the existing and proposed activities located on or over the sovereign submerged lands at the project site. This statement must include a description of docks and piers, types of vessels (e.g., commercial fishing, liveaboards, cruise ships, tour boats), length and draft of vessels, sewage pumped facilities, fueling facilities, boat hoists, boat ramps, travel lifts, railways, and any other structure or activities existing or proposed to be located waterward of the mean/ordinary high water line.

If slips are existing and/or proposed, please indicate the number of powerboat slips and sailboat slips and the percentage of those slips available to the general public on a "first come, first served" basis. This statement must include a description of channels, borrow sites, bridges, groins, jetties, pipelines, or other utility crossings, and any other structures or activities existing or proposed to be located waterward of the mean/ordinary high water line. For shoreline stabilization activities, this statement must include a description of seawalls, bulkheads, riprap, filling activities, and any other structure or activities existing or proposed to be located along the shoreline.

D. Provide the linear footage of shoreline at the mean/ordinary high water line owned by the application which borders sovereign submerged lands.

E. Provide a recent aerial photo of the area. A scale of 1"=200' is preferred. Photos are generally available at minimal cost from your local government property appraiser's office or from district Department of Transportation offices. Indicate on the photo the specific location of your property/project site.

Consents of Use

☐ Aerial Utility Crossing w/no support structures on sovereign submerged lands
☐ Private Dock
☐ Public Dock
☐ Multi-family Dock
☐ Fishing Pier (private or Multi-family)
☐ Private Boat Ramp
☐ Sea Wall
☐ Dredge
☐ Maintenance Dredge
☐ Navigation Aids/Markers
☐ Artificial Reef
☐ Riprap
☐ Public Boat Ramp
☐ Public Fishing Pier
☐ Repair/Replace Existing Public Fishing Pier
☐ Repair/Replace Existing Private Dock
☐ Repair/Replace Existing Public Dock
☐ Repair/Replace Existing Multi-family Dock
☐ Repair/Replace Existing Fishing Pier (Private or Multi-family)
☐ Repair/Replace Existing Private Boat Ramp
☐ Repair/Replace Existing Sea Wall, Revetments, or Bulkheads
☐ Repair/Replace/Modify structures/activities within an exiting lease, easement, management agreement or use agreement area or repair/replace existing grandfathered structures
☐ Repair/Replace Existing Public Boat Ramp

Miscellaneous

☐ Biscayne Bay Letters of Consistency/Inconsistency w/258.397, F.S.
☐ Management Agreements - Submerged Lands
☐ Reclamation
☐ Purchase of Filled, Formerly Submerged Lands
☐ Purchase of Reclaimed Lake Bottom
☐ Treasure Salvage
☐ Insect Control Structures/Swales
☐ Miscellaneous projects which do not fall within the activity codes listed above

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

ATTACHMENTS TO FORM 62-343.900(1):
JOINT APPLICATION FOR
ENVIRONMENTAL RESOURCE PERMIT
AUTHORIZATION TO USE SOVEREIGN SUBMERGED LANDS
FEDERAL DREDGE AND FILL PERMIT

Attachment No.	Title	Effective Date
1	DEP and WMD Permitting Responsibilities	October 3, 1995
2	Summary of Activities Typically Authorized by Each Permit Type	October 3, 1995
3	Permit Application Processing Fees	October 3, 1995
4	Mailing instructions for submitting ERP applications to DEP, with Map Showing the DEP District Boundaries and Addresses	October 3, 1995
5	Proprietary v. Regulatory Authorization	October 3, 1995

PROPRIETARY PROJECT DESCRIPTIONS

Please check the most applicable activity which applies to your project(s):

Leases

☐ Commercial marinas (renting wet slips) including condos, etc., if 50% or more of their wet slips are available to the general public
☐ Public/Local governments
☐ Yacht Clubs/Country Clubs (when a membership is required)
☐ Condominiums (requires upland ownership)
☐ Commercial Uplands Activity (temporary docking and/or fishing pier associated with upland revenue generating activities, i.e., restaurants, hotels, motels) for use of the customer at not charge
☐ Miscellaneous Commercial Upland Enterprises where there is a charge associated with the use of overwater structure (Charter Boats, Tour Boats, Fishing Piers)
☐ Ship Building/Boat Repair Service Facilities
☐ Commercial Fishing Related (Offloading, Seafood Processing)
☐ Private Single-family Residential Docking Facilities; Townhome Docking Facilities; Subdivision Docking Facilities (upland lots privately owned)

Public Easements and Use Agreements

☐ Miscellaneous Public Easements and Use Agreements
☐ Bridge Right-of-way (DOT, local government)
☐ Breakwater of groin
☐ Subaqueous Utility Cable (TV, telephone, electrical)
☐ Subaqueous Outfall or Intake
☐ Subaqueous Utility Water/Sewer
☐ Overhead Utility w/Support Structure on Sovereign Submerged Lands
☐ Disposal Site for Dredged Material
☐ Pipeline (gas)
☐ Borrow Site

Private Easements

☐ Miscellaneous Private Easements
☐ Bridge Right-of-way
☐ Breakwater Groin
☐ Subaqueous Utility Cable (TV, telephone, electrical)
☐ Subaqueous Outfall or Intake
☐ Subaqueous Utility Water/Sewer
☐ Overhead Utility Crossing
☐ Disposal Site for Dredged Material
☐ Pipeline (gas)

Attachment 1 to Instructions for Joint
Summary of DEP and WMD Permitting Responsibilities

The Department of Environmental Protection ("Department" or "DEP") is responsible for issuing (or denying) permits for some types of activities. The Water Management Districts ("WMDs") issue (or deny) the remaining types. You must submit your permit application to the agency which is responsible for permitting your proposed activities. This summary covers typical cases; applicants with non-typical situations or who need further clarification should contact the nearest DEP or WMD office.

THE DEPARTMENT is responsible for reviewing and taking agency action on the following activities (including compliance and enforcement):

- Systems designed to accommodate only one single-family dwelling unit, duplex, triplex, or quadruplex on a contiguous ownership of property of five acres or less, provided the single-family dwelling unit, duplex, triplex, or quadruplex is not part of a larger common plan of development or sale proposed by the applicant. The term "system" means a stormwater management system, dam, impoundment, reservoir, appurtenant work or works, or any combination thereof, including dredged or filled areas. This term includes the construction of docks, seawalls, structures, and all other types of dredging or filling in surface waters and wetlands.

- Projects that also need a waste treatment or management permit from DEP:
  - Solid waste (except certain activities that qualify for general permits)
  - Hazardous waste (except where the storage of hazardous waste is an incidental part of the facility)
  - Domestic wastewater (except for certain applications)
  - Industrial wastewater (except certain activities that qualify for general permits)

- All mining projects (excluding borrow pits).

- Power plants and electrical distribution and transmission lines, including associated facilities

- Communication cables and lines.

- Natural gas or petroleum exploration activities and facilities, and product pipelines.

- Docking facilities involving the creation of 10 or more new boat slips, including adjacent docking-related development and associated navigational dredging, except where the docking facility and associated navigational dredging is part of a larger plan of other commercial or residential development that has received or requires a permit under Part IV of Chapter 373, F.S. The term "adjacent docking-related development" includes parking areas for the docking facility, dry storage facilities, boat sales and supply facilities, maintenance and repair facilities, associated seafood loading and processing facilities, restaurants, and harbor master and marina administration facilities.

- Activities proposed in whole or in part seaward of the coastal construction control line.

- Navigational dredging conducted by governmental entities.

- Seaports and adjacent seaport-related development where the applicant or property owner is a port authority.

- The following activities in wetlands and other surface waters when such activities are not part of a larger plan of development: boat ramps, ski jumps, ski slalom courses, aids to navigation, mooring buoys and fields, piling supported structures which are not physically connected to uplands, estuarine and marine aquaculture facilities, fish attractors, artificial reefs, treasure salvage, and archaeological research or exploration.

- Temporary systems for commercial film productions.

- High speed rail facilities.

- Magnetic levitation demonstration projects.

- Mitigation banks primarily for: mining or power production; governmental solid waste facilities; governmental domestic wastewater facilities; industrial waste facilities; communication cables and lines; natural gas or petroleum exploration activities and facilities; and product pipelines; navigational dredging projects conducted by governmental entities; seaports; and modifications of permits previously issued by the Department.

- Modification of permits issued by the Department. If the permit has been modified, the agency that issued the last modification to the permit shall process the modification. Modifications to Management and Storage of Surface Waters (MSSW) Permits shall be processed by the appropriate Water Management District, except that the Department shall process modifications of MSSW permits for solid waste facilities and mining projects.

- All applications for wetland resource permits within the territory of the Northwest Florida Water Management District.

THE SOUTH FLORIDA, SOUTHWEST FLORIDA, ST. JOHNS RIVER, AND SUWANNEE RIVER WATER MANAGEMENT DISTRICTS are responsible for reviewing and taking agency action (including compliance and enforcement) on all other Environmental Resource Permit Applications. THE NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT is responsible for reviewing and taking agency action (including compliance and enforcement) for agriculture and silviculture activities.

Attachment 2 to Instructions for Joint Application
Summary of Activities Typically Authorized by Each Permit Type

These summary lists will assist an applicant in determining what type of permit their project will normally require. These lists are only a brief summary of the various exemptions or permit types and do not contain all of the requirements for each exemption or permit. Applicants unfamiliar with the details of all the requirements which apply to the various exemptions or permit types, or uncertain of how the conditions would apply to a specific situation, should discuss their project with staff of the appropriate reviewing agency before submitting an application.

EXEMPTIONS

You do not normally need to apply for a permit for these activities. If you are uncertain if your specific project meets the conditions for an Exemption, contact the agency with jurisdiction in the location where the activity is proposed.

- The repair or replacement of existing functional pipes or culverts, the purpose of which is the discharge or conveyance of stormwater
- The performance of maintenance dredging of existing manmade canals, channels, basins, berths, and intake and discharge structures
- The maintenance of functioning insect control structures, and the maintenance of functioning dikes and functioning irrigation and drainage ditches, including roadway drainage ditches
- The maintenance of previously-permitted minor silviculture surface water management systems
- The restoration of less than 100 feet in length of existing insect control impoundment dikes and the connection of such impoundments to tidally-influenced waters
- The installation, replacement or repair of mooring pilings and dolphins associated with private docking facilities
- The installation of private docks of 1000 square feet or less of surface area over wetlands or other surface waters or 500 square feet or less of surface area over wetlands or other surface waters for docks which are located in Outstanding Florida Waters
- Construction of private docks in artificially-created waterways where construction will not violate water quality standards, impede navigation, or adversely affect flood control
- The replacement or repair of existing docks and mooring piles
- The installation and maintenance to design specifications of boat ramps on artificial bodies of water, or the installation and maintenance to design specifications of boat ramps open to the public in any wetlands or other surface waters
- Construction of seawalls or riprap in artificially-created waterways
- The restoration of a seawall or riprap at its previous location or within one foot waterward of its previous location
- The construction of vertical seawalls in wetlands or other surface waters and the construction of riprap revetments, where such construction adjoins at both ends existing seawalls or riprap, follows a continuous and uniform construction line with the existing seawalls or riprap, is no more than 150 feet in length
- The installation of subaqueous transmission and distribution lines laid on, or embedded in, the bottoms of wetlands or other surface waters
- The replacement or repair of subaqueous transmission and distribution lines laid on, or embedded in, the bottoms of wetlands or other surface waters
- Activities necessary to preserve, restore, repair, remove, or replace an existing communication or power pole or line
- Installation, removal, and replacement of utility poles that support telephone or communication cable lines, or electric distribution lines of 35 kV or less
- The replacement or repair of existing open-trestle foot bridges and vehicular bridges that are 100 feet or less in length and two lanes or less in width
- Construction or maintenance of culverted driveways or roadway crossings and bridges of artificial waterways
- The installation of aids to navigation
- The use of rotenone, by Florida Game and Fresh Water Fish Commission
- Construction of fresh water fish attractions by Florida Game and Fresh Water Fish Commission, U.S. Forest Service, and county and municipal governments

- Installation of piling support structures associated with water quality testing or monitoring equipment by the Department or the Water Management Districts

NOTICED GENERAL ENVIRONMENTAL RESOURCE PERMIT

Listed below are activities which may qualify for a Noticed General Permit. Applicants who believe their projects might qualify should discuss the proposed project with the agency with jurisdiction in the location where the activity is proposed; obtain a copy of the applicable rule section(s) where the detailed terms, conditions, limitations and restrictions are listed; and then file an application.

- General Permit for installation, alteration or maintenance of boat ramps and associated accessory docks (Section 62-341.417, F.A.C.)
- General Permit for certain piers and associated structures (Section 62-341.427, F.A.C.)
- General Permit for installation of riprap (Section 62-341.431, F.A.C.)
- General Permit for installation of fences (Section 62-341.437, F.A.C.)
- General Permit for the construction or maintenance of culverted driveway or roadway crossings and bridges of artificial waterways (Section 62-341.439, F.A.C.)
- General Permit to the Florida Department of Transportation, counties and municipalities, for minor bridge alteration, replacement, maintenance and operation (Section 62-341.443, F.A.C.)
- General Permit to the Florida Department of Transportation, counties and municipalities for minor activities within existing rights-of-way or easements (Section 62-341.447, F.A.C.)
- General Permit for installation, maintenance, repair, and removal of underground cable, conduit, or pipeline (Section 62-341.453, F.A.C.)
- General Permit for the construction of aerial pipeline, cable, and conduit crossings of certain waters (Section 62-341.455, F.A.C.)
- General Permit for subaqueous utility crossings of artificial waterways (Section 62-341.457, F.A.C.)
- General Permit for the construction and operation of culverts and associated water control structures in mosquito control impoundments by governmental mosquito control agencies (Section 62-341.463, F.A.C.)
- General Permit for breaching mosquito control impoundments by governmental mosquito control agencies (Section 62-341.467, F.A.C.)
- General Permit for minor activities (Section 62-341.475, F.A.C.)
- General Permit for the U.S. Forest Service for minor works within National Forests (Section 62-341.495, F.A.C.)
- General Permit for the construction of artificial reefs (Section 62-341.600, F.A.C.)
- General Permit for clam and oyster culture on sovereignty submerged lands aquaculture leases (Section 62-341.601, F.A.C.)
- General Permit for installation and maintenance of intake and discharge pipes associated with marine bivalve facilities (Section 62-341.602, F.A.C.)
- General Permit for non-nursery cultivation and wild collection of aquatic plants (Section 62-341.603, F.A.C.)
- General Permit to perform prospecting activities for phosphate minerals (Section 62-341.610, F.A.C.)
- General Permit for temporary dragline crossings of waters (Section 62-341.611, F.A.C.)
- General Permit for low water crossings (Section 62-341.612, F.A.C.)
- General Permit for the construction and maintenance of electric powerlines by electric utilities (Section 62-341.620, F.A.C.)
- General Permit for relocation of aerial electric and communication lines associated with road improvement projects (Section 62-341.621, F.A.C.).

STANDARD GENERAL ENVIRONMENTAL RESOURCE PERMIT

Activities which do not qualify for an exemption or a noticed general permit may qualify for a Standard General Permit, if those activities meet all (except as noted) the criteria listed below. Applicants who are uncertain, especially with regard to "incidental site activities", should contact the appropriate reviewing agency. Applicants must file a permit application for any project which meets the criteria for a Standard General Permit.

- System must not be capable of impounding a volume of water more than 120 acre-feet, and

- Construction or alteration involving less than one acre of wetlands, and
- Project size is less than 100 acres, and
- The number of boat slips is less than ten.

or

- Is limited to incidental site activities (not applicable in St. Johns River WMD and Southwest Florida WMD).

INDIVIDUAL, AND CONCEPTUAL, ENVIRONMENTAL RESOURCE PERMIT

Any project or activity involving the construction, alteration, operation, maintenance, repair, or abandonment of any surface water or stormwater management system, dam, impoundment, reservoir, appurtenant work or works - including dredging and filling, and establishment and maintenance of a mitigation bank - must receive an Individual, or a Conceptual, Environmental Resource Permit, unless the project qualifies for an exemption or some type of general permit.

U.S. ARMY CORPS OF ENGINEERS GENERAL PERMITS

GP Number	ACTIVITY	COUNTY	ISSUED DATE	DATE EXPIRES
SAJ-5	Maintenace Dredge of Residential Canals	All Florida	8-15-94	8-15-99
SAJ-9	Private Piers	Palm Beach	7-22-94	7-22-99
SAJ-12	Boat Ramp	All Florida	3-1-94	3-1-99
SAJ-13	Aerial Transmission Lines	All Florida	3-1-94	3-1-99
SAJ-14	Subaqueous Transmission Lines	All Florida	3-1-94	3-1-99
SAJ-17	Minor Structures	All Florida	12-7-90	12-7-95
SAJ-18	Boat Slips	All Florida	3-31-94	3-31-99
SAJ-20	Private Piers	All Florida	3-1-94	3-1-99
SAJ-33	Private Multi-family Piers	All Florida	3-1-94	3-1-99
SAJ-34	Commercial Piers	All Florida	3-1-94	3-1-99
SAJ-41	Bulkheads and Backfill	Pine Island	4-13-89	4-13-94
SAJ-42	Private Piers	Dade	2-16-94	2-16-99
SAJ-46	Bulkheads and Backfill in Residential Canals	All Florida	1-19-95	1-19-00
SAJ-48	Fill	Alligator Alley	10-12-88	10-12-93
SAJ-50	Artificial Reefs	All Florida	7-1-89	7-1-94
SAJ-59	Fill	Dade: Bird Drive Basin	8-2-94	8-2-99
SAJ-67	Minor Structures	Okeechobee Waterway	1-24-91	1-24-99
SAJ-68	Restricted Zones	All Florida	5-1-90	5-1-95
SAJ-70	Bulheads and Backfill	Monroe: Cudjoe Gardens	11-9-90	11-9-95

Notes: ALL GENERAL PERMITS ARE SUBJECT TO GENERAL CONDITIONS.

As of March 1, 1994, all general permits for single-family piers that have been revoked are now replaced by SAJ-20.

U. S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMITS

Nationwide Permit Number & Description	Water Quality Certification	Coastal Zone Consistency	Predischarge Notificiation Requirements
1: Aids to Navigation	Certified	Certified	None
2: Structures in Artificial Canals	Certified	Certified	None
3: Maintenance	Certified	Certified	None
4: Fish & Wildlife Harvesting, Enhancement and Attraction Devices and Activities	Certified	Certified	None
5: Scientific Measurement Devices	Certified	Certified	No PDN coordination required
6: Survey Activities	Certified	Certified	None
7: Outfall Structures	Certified	Certified	No PDN coordination required
8: Oil and Gas Structures	Denied	Denied	
9: Structures in Fleeting and Anchorage Areas	Certified	Certified	None
10: Mooring Buoys	Certified	Certified	None
11: Temporary Recreational Structures	Certified	Certified	None
12:Utility Line Backfill and Bedding	Certified	Certified	None
13: Bank Stabilization	Certified	Certified	PDNs will be coordinated with all Federal agencies
14: Road Crossing	Certified	Certified	PDN coordination for tidal crossings only
15: USCG Approved Bridges	Certified	Certified	None
16: Return Water from Upland CDF (contained disposal facility)	Denied	Certified	None
17: Hydropower Projects	Certified	Certified	PDN required for all applications with coordination with all agencies
18: Minor Discharges	Certified	Certified	PDNs coordinated with all agencies
19: 25 Cubic Yards of Dredging	Certified	Certified	None

20: Oil-Spill Cleanup	Certified	Certified	None
22: Removal of Vessels	Certified	Certified	None
23: Approved Categorical Exclusions	Certified	Certified	None
24: State-Administered Section 404 Program	NA	NA	None
25: Structural Discharge	Certified	Certified	None
26: Headwaters and Isolated Waters Discharges	Denied	Certified	All work between 1 and 5 acres coordinated with EPA, NMFS and USF&WS. Work between 5 and 10 acres coordinated with ALL agencies, including State Clearinghouse in Tallahassee
27: Wetland Restoration Activities	Certified	Certified	None
28: Modification of Existing Marinas	Certified	Certified	None
32: Completed Enforcement Actions	Certified	Certified	None
33: Temporary Construction and Access	Certified	Certified	No PDN coordination required
35: Maintenance Dredging of Existing Basins	Certified	Certified	None
36: Boat Ramps	Certified	Certified	None
37: Emergency Watershed Protection	Certified	Certified	No PDN coordination required with ALL agencies
38: Cleanup of Hazardous and Toxic Waste	Certified	Certified	No PDN coordination required with ALL agencies
40: Farm Buildings	Certified	Certified	None

Notes: Further explanations of listed activities can be found at 33 CFR Part 330 Appendix B.

Nationwide permit program revised - January 21, 1992
Information on nationwides as of June 28, 1993

ATTACHMENT 3 TO INSTRUCTIONS FOR JOINT APPLICATION PERMIT APPLICATION PROCESSING FEES FOR DEP

(Note - fees may be different if application is processed by a WMD)

Environmental Resource Permits

For individual, conceptual approval or standard general permit applications that involve a combination of the fee categories listed in Paragraphs A and B below, the highest fee in these paragraphs that applies to the project in question shall be the correct application fee.

A. Individual and Conceptual Approval Permits (those systems that involve $ 1 acre of construction or alteration in, on or over wetlands or other surface waters, involve $ 10 new boat slips, are capable of impounding > 120 acre feet, serve a total land area $ 100 acres, or provide for the placement of $ 12 acres of impervious surface):

1. For a system that involves < 1 acre of construction or alteration in, on or over wetlands or other surface waters and involves < 10 new boat slips but reaches any of the following three thresholds:

   a. is capable of impounding > 120 acre feet;
   b. serves a total land area $ 100 acres; or
   c. provides for the placement of $ 12 acres of impervious surface..... $2,500.00

2. For a system involving the following total acreage of construction or alteration in, on or over wetlands or other surface waters:

   a. ≥ 100 acres $10,000.00
   b. < 100 acres and $ 50 acres $8,000.00
   c. < 50 acres and $ 10 acres.....$6,500.00
   d. < 10 acres and $ 5 acres.....$5,500.00
   e. < 5 acres and $ 2 acres.....$4,000.00
   f. < 2 acres and $ 1 acre.....$3,000.00

3. For a system involving 10 or more new boat slips and either capable of impounding $ 40 acre feet, serving a total land area $ 40 acres, providing for the placement of $ 12 acres of impervious surface, or involving construction or alteration (other than new boat slips) in, on or over wetlands or other surface waters, with the following number of new slips:

   a. 50 or more.....$6,500.00
   b. 30 - 49.....$5,500.00
   c. 10 - 29.....$4,000.00

4. For a system involving 10 or more new boat slips and capable of impounding < 40 acre feet, serving a total land area < 40 acres, providing for the placement of < 12 acres of impervious surface, and not involving construction or alteration (other than new boat slips) in, on or over wetlands or other surface waters, with

the following number of new slips:

a. 50 or more.....$4,000.00
b. 30 - 49.....$3,000.00
c. 10 - 29.....$1,500.00

5. For a system involving a new solid waste facility.....$7,500.00

6. For a system involving an existing solid waste facility.....$8,500.00

B. Standard General Permits (those systems below the thresholds listed in Paragraph A, above):

1. For a system serving a project with a total land area < 100 acres and $ 40 acres, with the following additional activities:

a. Both the construction of 1 - 9 new boat slips and the construction or alteration (other than new boat slips) in, on or over a total area of wetlands or other surface waters < 1 acre and > 0 acres.....$1,500.00
b. Either the construction of 1 - 9 new boat slips or the construction or alteration (other than new boat slips) in, on or over a total area of wetlands or other surface waters < 1 acre and > 0 acres.....$1,000.00
c. No construction or alteration in, on or over wetlands or other surface waters.....$700.00

2. For a system serving a project with a total land area < 40 acres and > 1 acre, with the following additional activities:

a. 3 - 9 new boat slips.....$700.00
b. 1 - 2 new boat slips.....$600.00
c. Construction or alteration (other than new boat slips) in, on or over a total area of wetlands or other surface waters < 1 acre and > 0 acres.....$600.00

3. For a system serving a project with a total land area # 1 acre, with the following additional activities:

a. 3 - 9 new boat slips.....$600.00
b. 1 - 2 new boat slips.....$300.00
c. Construction or alteration (other than new boat slips) in, on or over a total area of wetlands or other surface waters < 1 acre and > 0 acres.....$500.00

C. Environmental Resource Permit for a system serving a project with a total land area < 40 acres and involving no construction or alteration in, on or over wetlands or other surface waters.....$300.00

D. For a Noticed General Permit.....$100.00

E. Modifications:

1. For major modifications of Individual and Conceptual Approval Permits (no increase in project area).....$700.00

2. For major modifications of Individual and Conceptual Approval Permits (with an increase in project area).....$2,000.00

3. For major modifications of Individual and Conceptual Approval Permits for solid waste facilities.....$4,000.00

4. For major modifications of Standard General Permits .....50% of original application fee

5. For minor modifications of Individual and Conceptual Approval Permits for solid waste facilities.....$1,500.00

6. For other minor modifications.....Fee specified in F.A.C. Rule 62-4.050(4)(r)

7. For permit extensions.....$50.00

Mitigation Bank

Mitigation Bank and Mitigation Bank Conceptual Approval Permits.....$4,000.00

Variances

A. To the prohibition of work in Class II Waters, approved for shellfish harvesting.....$100.00

B. To mangrove prohibitions in Chapter 17-321, F.A.C.....$100.00

C. Other variances $500.00

Formal Determinations of Wetlands and Other Surface Waters

Petitions for Formal Determinations of the Landward Extent of Wetlands and Other Surface Waters:

A. Petition application fees shall be based on the acreage of the entire property for which the petition is filed, according to the following schedule:

1. > 0 acres and ≤ 1 acre.....$250.00

2. > 1 acre and ≤10 acres.....$550.00

3. > 10 acres and ≤40 acres.....$750.00

4. > 40 acres and ≤100 acres.....$1,500.00

5. For property greater than 100 acres in size, the fee will be **$1,500.00** plus an additional **$200.00** for each additional 100 acres (or portion thereof) that exceeds the first 100 acres.

B. For a new formal determination that covers property on which a valid formal determination exists, provided that the petition for the new formal determination is filed within 60 days of the date of expiration of the existing formal determination and the physical conditions on the property have not changed, other than changes authorized by a permit, so as to alter the boundaries of surface waters or wetlands, and provided the methodology for determining the

extent of surface waters and wetlands authorized by Sections 373.421 and 373.4211, F.S., has not been amended since the previous formal determination.....$250.00

ATTACHMENT 5 TO INSTRUCTIONS FOR JOINT APPLICATION
PROPRIETARY VERSUS REGULATORY

Prior to the merger into the Department of Environmental Protection (DEP), the Department of Environmental Regulation had regulatory jurisdiction over certain activities affecting air, water, and land. The Department of Natural Resources had proprietary jurisdiction over uses of sovereign submerged lands. The following explains the proprietary and regulatory functions of DEP's Submerged Lands and Environmental Resources Program.

The word **regulatory** refers to a type of authority that allows an entity of the government, such as DEP, to limit certain activities on your property, as well as on publicly owned lands, to some specific degree for the greater public good. DEP, in its regulatory capacity, is required by acts of the Florida Legislature, to protect the natural resources of the state, such as air, water and wildlife, to insure that these resources will be healthy and abundant for present and future generations. DEP's Submerged Lands and Environmental Resources Program reviews applications for proposed works in wetlands and other surface waters, as well as works in uplands that can affect water quality and quantity, to ensure compliance with the Florida Administrative Code and Florida Statutes.

Over a century ago, the Governor and Cabinet, as the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida (Trustees), were designated by the state legislature as the Trustees of sovereign submerged lands. All tidally influenced waters to the mean high water line and navigable fresh waterbodies to the ordinary high water line in existence when Florida became a state in 1845 are considered sovereign. In accordance with the Constitution of the State of Florida, these lands are held in trust by the state for all the people. As the Trustees, the Governor and Cabinet have **proprietary** (ownership) authority over sovereign submerged lands and their uses and are responsible for insuring that these lands and the associated aquatic resources remain healthy and in abundance for present and future generations.

The Department of Environmental Protection, in addition to its regulatory capacity, acts as the staff to the Trustees in the review of proposed uses of sovereign submerged lands. If you are proposing to conduct an activity in waters that are not sovereign submerged lands, you will only be required to meet regulatory standards. If your proposed activity is located on sovereign submerged lands, you may be required to meet both regulatory and proprietary requirements as found in the Florida Statutes and Florida Administrative Code.

n:rules/rules/forms/joint.app/62-343~1.dot

updated 11/3/97 kg

APPENDIX B
LIST OF FLUCFCS LAND USE AND COVER CLASSIFICATIONS

APPENDIX B

LAND USE AND COVER CLASSIFICATIONS LISTING OF LEVELS 1 -IV

This classification listing (Levels I-IV) reflects the detailed identification possible in depicting the land use, land cover and land forms. With the employment of color or false color infrared aerial photography, a higher degree of accuracy, precision and detail can be realized. The recommended scale is 1:12,000 to 1:10,000 or larger for both the aerial photography and the graphics product (i.e., the maps). Once again, the listing presented herein is not a fixed categorization but rather an open-end system which may be expanded as the need arises.

HIERARCHICAL LIST OF LAND USE AND COVER CLASSIFICATIONS LEVELS I -IV

(a) 100 URBAN AND BUILT-UP

110 Residential, Low Density <Less than two dwelling units per acre>

111 Fixed Single Family Units

1111 Single Story Units

1112 Two or More Story Units

112 Mobile Home Units

1121 Single wide Units

1122 Double wide Units

1123 Mixed Widths Units

113 Mixed Units <Fixed and mobile home units>

116 Low Density with Golf Courses and Small Bodies of Water

119 Low Density Under Construction

120 Residential, Medium Density <Two-five dwelling units per acre>

121 Fixed Single Family Units

1211 Single Story Units

1212 Two or More Story Units

122 Mobile Home Units

1221 Single Wide Units

1222 Double Wide Units

1223 Mixed Widths Units

123 Mixed Units <Fixed and mobile home units>

126 Medium Density with Golf Courses and Small Bodies of Water

129 Medium Density Under Construction

130 Residential, High Density

131 Fixed Single Family Units <Six or more dwelling units per acre>

1311 Single Story Units

1312 Two or More Story Units

132 Mobile Home Units <six or more dwelling units per acre>

1321 Single Wide Units

1322 Double Wide Units

1323 Mixed Widths Units

133 Multiple Dwelling Units, Low Rise <Two stories or less>

1331 Duplex Units

1332 Triplex Units

1333 Quadruplex Units

1334 Apartment Units

1335 Townhouse Units

1336 Patio Houses

134 Multiple Dwelling Units, High Rise <Three stories or more>

1341 Apartment Units

1342 Townhouse Units

1343 Condominium Units

1344 Mixed Units

135 Mixed Units <Fixed and mobile home units>

136 Multiple-High Density Units: One, Two, or Three Stories with Golf Courses and Small Bodies of Water

139 High Density Under Construction

140 Commercial and Services

141 Retail Sales and Services

1411 Shopping Centers (Plazas, Malls)

1412 Service Stations

1413 Banking Facilities

1414 Convenience Stores

1415 Restaurants

1416 Builder's Supply

1417 Petroleum (Fuels)

1418 Mixed

142 Wholesale Sales and Services <Excluding warehouses associated with industrial use>

1421 Warehouses

1422 Mini-Warehouses

1423 Junk Yards

1424 Farmers Markets

1425 Other

143 Professional Services

144 Cultural and Entertainment

1441 Theaters

1442 Museums

1443 Open Air Theaters

1444 Amphitheaters

1445 Amusement Parks

1446 Art Galleries

1447 Libraries

1448 Other

145 Tourist Services

1451 Hotels

1452 Motels

1453 Travel Trailer Parks

1454 Campgrounds -Define

1455 Other

146 Oil and Gas Storage <Except those areas associated with industrial use or manufacturing>

1461 Crude Oil

1462 High Octane Fuels

1463 Liquified Gases

1464 Petroleum Fuels

1465 Motor Lubricants

147 Mixed Commercial and Services

148 Cemeteries

149 Commercial and Services Under Construction

150 Industrial

151 Food Processing

1511 Citrus

1512 Sugar

1513 Seafood

1514 Meat Packaging Facilities

1515 Poultry and Eggs

1516 Grains and Legumes

152 Timber Processing

1521 Sawmills

1522 Plywood and Veneer Mills

1523 Pulp and Paper Mills

1524 Pole Peeler and Treatment Plants

1525 Wood Distillation

1526 Log Home Prefabrication

1527 Woodyards

153 Mineral Processing

1531 Clays

1532 Phosphate

1533 Limerock

1534 Magnesia

1535 Heavy Minerals

154 Oil and Gas Processing

1541 Gasoline

1542 Jet Fuel

1543 FuelOil

1544 Liquified Gases

1545 Asphalt

155 Other Light Industrial

1551 Boat Building and Repair

1552 Electronics Industry

1553 Furniture Manufacturers

1554 Aircraft Building and Repair

1555 Container Manufacturers (Cans, bottles, etc.)

1556 Mobile Home Manufacturers

156 Other Heavy Industrial

1561 Ship Building and Repair

1562 Pre-stressed concrete Plants

1563 Metal Fabrication Plants

1564 Cement Plants

159 Industrial Under Construction

160 Extractive

161 Strip Mines

1611 Clays

1612 Peat

1613 Heavy Minerals

162 Sand and Gravel pits

163 Rock Quarries

1631 Limerock

1632 Dolomite

1633 Phosphate

1634 Heavy Minerals

164 Oil and Gas Fields

1641 Crude oil

1642 Natural Gas

165 Reclaimed Land

166 Holding Ponds

170 Institutional

171 Educational Facilities

1711 Universities or Colleges

1712 Vocational Schools

1713 High Schools

1714 Middle Schools

1715 Elementary Schools

172 Religious

1721 Parochial Schools

1722 Churches/Synagogues Only

173 Military

1731 Air Force Installation

1732 Army Installations

1733 Navy Installations

1734 Marines Installations

1735 Coast Guard Installations

1736 National Guard Installations

174 Medical and Health Care

1741 Hospitals

1742 Nursing Homes and/or Convalescent Centers

1743 Clinics

175 Governmental

1751 City Halls

1752 Courthouses

1753 Police Stations

1754 Fire Stations

1755 Office Buildings

1756 Maintenance Yards

1757 Post Offices

1758 Other

176 Correctional

1761 State Prisons

1762 Federal Prisons

1763 Juvenile Centers

1764 Road Prisons

1765 Municipal Prisons

177 Other Institutional

178 Commercial Child Care

179 Institutional Under Construction

180 Recreational

181 Swimming Beach

182 Golf Courses

183 Race Tracks

1831 Automobile Tracks

1832 Horse Tracks

1833 Dog Tracks

184 Marinas and Fish Camps

1841 Marinas (Basins)

1842 Fish Camps

185 Parks and Zoos

1851 City Parks

1852 Zoos

186 Community Recreational Facilities

1861 Baseball

1862 Basketball

1863 Football/Soccer

1864 Tennis

187 Stadiums <Those facilities not associated with high schools, colleges or universities>

188 Historical Sites

1881 Prehistoric

1882 Historic

189 Other Recreational

1891 Riding Stables

1892 Go-Cart Tracks

1893 Skeet Ranges

1894 Rifle and/or Pistol Ranges

1895 Golf Driving Ranges

1896 Other

190 Open Land

191 Undeveloped Land within Urban Areas

192 Inactive Land with street pattern but without structures

193 Urban Land in transition without positive indicators of intended activity

194 Other Open Land

(b) 200 AGRICULTURE

210 Cropland and Pastureland

211 Improved Pastures

212 Unimproved Pastures

213 Woodland Pastures

214 Row Crops

2141 Corn

2142 Tomatoes

2143 potatoes

2144 Beans

2145 Peanuts

2146 soybeans

2147 Strawberries

2148 Tobacco

215 Field Crops

2151 Wheat

2152 Oats

2153 Hay

2154 watermelons

2155 Grasses

2156 sugar Cane

220 Tree Crops

221 citrus Groves

2211 oranges

2212 Grapefruits

2213 Tangerines

222 Fruit Orchards

2221 peaches

2222 Mangos

2223 Avocados

223 Other Groves

2231 Pecans

224 Abandoned Groves

230 Feeding operations

231 Cattle Feeding operations

232 Poultry Feeding Operations

233 Swine Feeding operations

240 Nurseries and Vineyards

241 Tree Nurseries

2411 Pot Nurseries

2412 Field Nurseries

242 Sod Farms

243 Ornamentals

244 Vineyards

245 Floriculture

246 Timber Nurseries

250 Specialty Farms

251 Horse Farms

252 Dairies

253 Kennels

254 Aquaculture

259 Other

260 Other Open Lands <Rural>

261 Fallow Crop Land

(c) 300 RANGELAND

310 Herbaceous (Dry Prairie)

320 Shrub and Brushland

Level IV classification further subdivides Level III classifications on the basis of ground cover classes(other than grasses).

3201 Class 1- less than 25% ground cover (excluding grasses)

3202 Class 2- 26 to 50% ground cover

3203 Class 3- 51 to 75% ground cover

3204 Class 4- greater than 75% ground cover

321 Palmetto Prairies

322 Coastal Scrub

329 Other Shrubs and Brush

330 Mixed Rangeland

(d) 400 UPLAND FORESTS

Level IV classification further subdivides Level III classifications on the basis of tree

crown closure classes.

4001 Class 1- 10 to 30% crown closure

4002 Class 2- 31 to 50% crown closure

4003 Class 3- 51 to 70% crown closure 4004 Class 4- greater than 70% crown closure

410 Upland Coniferous Forests

411 Pine Flatwoods

412 Longleaf pine -Xeric Oak

413 Sand pine

414 Pine -Mesic Oak

415 Mixed pine

419 Other pines

420 Upland Hardwood Forests

421 Xeric Oak

422 Brazilian Pepper

423 Oak- pine -Hickory

424 Melaleuca

425 Temperate Hardwoods

426 Tropical Hardwoods

427 Live Oak

428 Cabbage Palm

429 Wax Myrtle -willow

430 Upland Hardwood Forests, Continued

431 Beech - Magnolia

432 Sand Live Oak

433 Western Everglades Hardwoods

434 Hardwood- Coniferous Mixed

435 Dead Trees

436 Upland Scrub, pine and Hardwoods

437 Australian pines

438 Mixed Hardwoods

439 Other Hardwoods

440 Tree Plantations

441 Coniferous Plantations

4411 Sand pine Plantations

4412 Christmas Tree Plantations

442 Hardwood Plantations

4421 Eucalyptus Plantations

443 Forest Regeneration Areas

444 Experimental Tree Plots

445 Seed Plantations

(e) 500 WATER

510 Streams and Waterways

520 Lakes

521 Lakes larger than 500 acres (202 hectares)

522 Lakes larger than 100 acres (40 hectares)

523 Lakes larger than 10 acres (4 hectares) but less than

100 acres

524 Lakes less than 10 acres (4 hectares) which are dominant features.

530 Reservoirs

531 Reservoirs larger than 500 acres (202 hectares)

532 Reservoirs larger than 100 acres (40 hectares) but.

less than 500 acres

533 Reservoirs larger than 10 acres (4 hectares) but less than 100 acres

534 Reservoirs less than 10 acres (4 hectares) which are dominant features

540 Bays and Estuaries

541 Embayments opening directly into the Gulf of Mexico 0: the Atlantic Ocean

542 Embayments not opening directly into the Gulf of Mexico or the Atlantic Ocean

550 Major Springs

560 Slough Waters

570 Major Bodies of Water

571 Atlantic Ocean

572 Gulf of Mexico

(f) 600 WETLANDS

610 Wetland Hardwood Forests

Level IV classification further subdivides Level III classifications on the basis of tree crown closure classes.

6101 Class 1- 10 to 30% crown closure

6102 Class 2- 31 to 50% crown closure

6103 Class 3- 51 to 70% crown closure

6104 Class 4- greater than 70% crown closure

611 Bay Swamps

612 Mangrove Swamps

613 Gum Swamps

614 Titi Swamps

615 Streams and Lake Swamps (Bottomland)

616 Inland Ponds and Sloughs

617 Mixed Wetland Hardwoods

618 willow and Elderberry

619 Exotic Wetland Hardwoods

620 Wetland Coniferous Forests

Level IV classification further subdivides Level III classifications on the basis of tree crown closure classes

6201 Class 1- 10 to 30% crown closure

6202 Class 2- 31 to 50% crown closure

6203 Class 3- 51 to 70% crown closure

6204 Class 4- greater than 70% crown closure

621 Cypress

622 Pond pine

623 Atlantic White Cedar

624 Cypress -- Pine – Cabbage Palm

625 Hydric Pine Flatwoods

626 Hydric pine Savanna

627 Slash pine Swamp Forest

630 Wetland Forested Mixed

631 Wetland Shrub

640 Vegetated Non-Forested Wetlands

641 Freshwater Marshes

6411 Saw grass

6412 Cattail

6413 Spike Rush

6414 Maidencane

6415 Dog fennel and low marsh grasses

6416 Arrowroot

6417 Freshwater Marsh with shrubs, brushes, and vines

6418 Giant Cutgrass

642 Saltwater Marshes

6421 Cordgrass

6422 Needlerush

643 Wet Prairies

644 Emergent Aquatic Vegetation

6441 Water Lettuce

6442 Spatterdock

6443 Water Hyacinth

6444 Duckweed

6445 Water Lily

645 Submergent Aquatic Vegetation

6451 Hydrilla

646 Treeless Hydric Savanna

650 Non-Vegetated

651 Tidal Flats

652 Shorelines

653 Intermittent Ponds

654 Oyster Bars

(g) 700 BARREN LAND

710 Beaches Other Than Swimming Beaches

720 Sand Other Than Beaches

730 Exposed Rock

731 Exposed Rock with Marsh Grasses

740 Disturbed Land

741 Rural land in transition without positive indicators of intended activity

742 Borrow Areas

743 Spoil Areas

744 Fill Areas <Highways-Railways>

745 Burned Areas

746 Abandoned Railways

747 Dikes and Levees

(h) 800 TRANSPORTATION, COMMUNICATION AND UTILITIES

810 Transportation

811 Airports

8111 Commercial

8112 General Aviation

8113 Private

8114 Abandoned

812 Railroads

8121 Holding and Trans-shipment Yards

8122 Repair Facilities

8123 Associated Buildings

813 Bus and Truck Terminals

8131 Bus (Commercial)

8132 Bus (Government, schools, city service)

8133 Truck Terminals

814 Roads and Highways

8141 Limited Access (Interstate system)

8142 Divided Highways (Federal-State)

8143 Two-Lane Highways (State)

8144 County Maintained

8145 Graded and Drained

8146 Primitive/Trails

815 Port Facilities

8151 Wharves

8152 Piers

8153 Terminals (Cargo)

8154 Terminals (Passenger)

8155 Repair Facilities

8156 Shipyards (Building-Fabrication)

8157 Ship Chandlers

8158 Port Administration and Port Services

8159 Facilities Under Construction

816 Canals and Locks

8161 Locks

8162 Power Supply Buildings

817 Oil, Water or Gas Long Distance Transmission Lines

8171 Pipe Lines

8172 Pump Stations

818 Auto Parking Facilities <When not directly related to other land use>

819 Transportation Facilities Under Construction

8191 Highways

8192 Railroads

8193 Airports

8194 Port Facilities

8195 Pipe Lines

820 Communications

821 Transmission Towers

8211 Microwave

8212 Radio/Television

8213 Antenna Farms

8214 Navigational Systems (i.e., Loran, ILS)

822 Communication Facilities

8221 Telephone

8222 Radio

8223 Television

829 Communication Facilities under Construction

830 Utilities

831 Electric Power Facilities

8311 Thermal

8312 Gas Turbine

8313 Nuclear

8314 Hydro

8315 Sub-Stations

832 Electrical Power Transmission Lines

8321 Trunk

8322 Feeder

833 Water Supply Plants

8331 Treatment Plants

8332 Settling Plants

8333 Water Tanks

8334 Well Fields

8335 Pumping Stations

834 Sewage Treatment

8341 Treatment plants

8342 Lift Stations

8343 Aeration Fields

835 Solid Waste Disposal

839 Utilities Under Construction

(i) 900 SPECIAL CLASSIFICATIONS

910 Vegetation

911 Sea Grass

9111 Sea Grass, Sparse -Medium

9112 Sea Grass, Dense

9113 Sea Grass, Patchy

APPENDIX C
PUBLIC AND AGENCY COORESPONDENCE

Secretary of State

STATE OF FLORIDA
THE CAPITOL
TALLAHASSEE 32304
(904) 488-3680

GEORGE FIRESTONE
SECRETARY OF STATE

February 11, 1981 In reply refer to:

Mr. Louis Tesar
Historic Sites Specialis
(904) 487-2333

Mr. Robert B. Howard
Chief, EIS Preparation Section
United States Environmental Protection Agency
Region Four
345 Courtland Street
Atlanta, Georgia 30308

Re: 4SA-EIS
Cultural Resource Assessment Review Request
"3.5.3 Historic and Archaeological Resource"
from Draft EIS, Mississippi Chemical Corporation (MCC)
Hardee County Phosphate Mine

Dear Mr. Howard:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Procedures for the Protection of Historic and Cultural Properties"), we have reviewed the above referenced project for possible impact to archaeological and historical sites or properties listed, or eligible for listing, in the National Register of Historic Places. The authorities for these procedures are the National Historic Preservation Act of 1966 (Public Law 89-665) as amended by P.L. 91-243, P.L. 93-54, P.L. 94-422, P.L. 94-458, and P.L. 96-515 and Presidential Executive Order 11593 ("Protection and Enhancement of the Cultural Environment").

We have reviewed the above document and the information contained in the Florida Master Site File. We concur with the evaluation of the cultural resources presented in that document.

None of the three 20th century sites is historically significant, and three of the four aboriginal sites are so severely disturbed and eroded by 20th century land clearing and agricultural activities that they fail to satisfy the criteria for significance used in determining eligibility for listing on the National Register of Historic Places. Neither preservation nor salvage excavation or historic documentation is recommended for any of the above sites.

On the other hand, aboriginal site #1, which is recorded in the Florida Master Site File as site 8Hr5 and located in the NW¼ of the SE¼ of the SW¼ of Sec. 30, T34S-R24E, is potentially significant as it represents one of the northernmost sites of the Okeechobee Basin peoples. Since the upper levels of the site have been disturbed through land clearance activities some of the categories of data contained within the site have been lost. However, subsurface testing revealed that "...large portions (of this site) are still intact" (Draft EIS, p. 19-6). In view of this information and the site's significance as one of the few Okeechobee Basin type sites recorded in this area, it is deemed potentially eligible for listing on the National Register of Historic Places. Therefore, archaeological salvage excavation is recommended to record the data contained within this site. In view of the extensive alteration of the surrounding environment, site preservation is not recommended.

If you have any questions about our comments, please do not hesitate to contact this office.

On behalf of the Secretary of State, George Firestone, and the staff of the Bureau of Historic Sites and Properties, I would like to thank you for your interest and cooperation in preserving Florida's historic resources.

Sincerely,

George W. Percy

George W. Percy
Deputy State Historic
Preservation Officer

GWP:Teh

Office of the Secretary
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Historic St. Augustine Preservation Board
Historic Tallahassee Preservation Board
Historic Tampa/Hillsborough County Preservation Board
Ringling Museum of Art

FLORIDA DEPARTMENT OF STATE
Sandra B. Mortham
Secretary of State
DIVISION OF HISTORICAL RESOURCES

May 29, 1997

Mr. Kenneth W. Hardin
Janus Research
P. O. Box 919
St. Petersburg, Florida 33731

In Reply Refer To:
Robin D. Jackson
Historic Sites Specialist
Project File No. 972146

RE: Cultural Resource Assessment Request
Preliminary Cultural resource Assessment of the IMC-Agrico Company's Ona Mine Property in Hardee County Four Corners Mine DRI Amendment Areas in Manatee County, and Pine Level Mine Amendment Area in DeSoto and Manatee Counties, Florida. By Janus Research, April 1997.

Dear Mr. Hardin:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), as well as the provisions contained in Chapter 267.061, Florida Statutes, we have reviewed the results of the preliminary cultural resource assessment survey and site potential overlay maps for the above referenced report. We concur with the conclusions and recommendations in the report regarding the site probability zones in the five project parcels. We further concur that these areas will need to be subjected to a cultural resource assessment survey in order to locate any prehistoric or historic archaeological sites, or historic structures and to assess their potential for National Register eligibility. We concur with the proposed survey methodology.

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Laura A. Kammerer for

George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Jrj

DIRECTOR'S OFFICE
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250 • (904) 488-1480
FAX: (904) 488-3353 • WWW Address **http://www.dos. state.fl.us**

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(904) 487-2299 • FAX: 414-2207

☑ HISTORIC PRESERVATION
(904) 487-2333 • FAX: 922-0496

☐ HISTORICAL MUSEUMS
(904) 488-1484 • FAX: 921-2503

Department of Environmental Protection

Jeb Bush
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David B. Struhs
Secretary

August 10, 1999

RECEIVED BY
T. A. SMITH

AUG 1 3 1999

FILE
REFERRED TO
COPIES TO Selwyn
Dee Bryant Hall
Greg Denver

Mr. Ted A. Smith, P.E.
IMC-Agrico Company
Post Office Box 2000
Mulberry, Florida 33860-1100

Re: Flood Evaluations for Ona Mine Tract, Hardee County and Pine Level Mine Tract, Manatee and Desoto Counties for IMC-Agrico Company prepared by Ardaman & Associates, Inc.

Dear Mr. Smith:

The Technical Support Section of the Bureau of Mine Reclamation received the above referenced flood evaluations on May 6, 1999 for review. The flood evaluations were prepared on your companies' behalf by Ardaman & Associates, Inc. The flood evaluations analyzed streams within the Ona and Pine Level Mine Tracts. The report contained the results and methodologies used to determine flood level elevations and floodplain extent for the mean annual, 25 year and 100 year flood events along the stream systems.

IMC-Agrico Company is proposing to construct and operate phosphate mines at both the Ona and Pine Level Mine Tracts. Through a current team permitting process IMC-Agrico has entered into a coordinated effort with the Florida Department of Environmental Protection, as well as with other federal, state, and local government agencies along with interested members of the general public. Through this coordinated effort, IMC-Agrico will file one Consolidated Development Application for these two proposed phosphate mines. The above referenced report supports the application with respect to floodplain delineation's for primary surface water conveyance systems within the Ona and Pine Level tracts.

The report predicts flood levels for the Pine Level tract for the mean annual, 25 and 100 year storm events, within the tract boundaries, for Horse Creek, Brandy Branch, Buzzard Roost Branch, Buzzard Roost Branch Tributary, and Big Slough Canal including Bud Slough and Wildcat Slough. Peak flood discharges and elevations along Horse Creek, Brandy Branch and Buzzard Roost Branch were computed, using the HEC-RAS methodology. Peak flood discharges and elevations along Big Slough Canal watershed were computed, using the CHAN methodology. Calibration of the methodologies used was provided and demonstrated by the consultant in Table 16, 17 and 18 of the report. Comparisons of modeled versus measured quantities for discharge were performed for Horse Creek at State Road 72.

Comparisons of modeled versus measured quantities for water elevations were performed for Horse Creek at State Road 72 and Brandy Branch at State Road 70. The comparative results are either identical or within such values to be considered negligible.

The report predicts peak flood discharges and elevations for the Ona tract for the mean annual, 25 and 100 year storm events, within the tract boundaries, for Horse Creek, West Fork Horse Creek , Brushy Creek and Oak Creek. Peak flood discharges and elevations along Horse Creek and West Fork Horse Creek were computed, using the HEC-RAS methodology. Peak flood discharges and elevations along Brushy Creek and Oak Creek were computed, using the CHAN methodology.

The data gathering, flood discharge computations, flood profile determinations and the documentation of results were found to be performed in an acceptable manner. The Bureau of Mine Reclamation therefore accepts the flood evaluation study performed by Ardaman & Associates for both the Ona and Pine Level Mine Tracts.

If I can be of further assistance, please contact me at Tel. (850) 488-8217.

Sincerely,

Stephen Partney, P.E.
Professional Engineer Administrator

SP/tb
cc: Mr. John Garlanger, Ardaman & Associates
Mr. Brian Sodt, Central Florida Regional Planning Council
Ms. Dawn Turner, SWFWMD
Mr. Orlando Rivera, DEP

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Katherine Harris
Secretary of State

DIVISION OF HISTORICAL RESOURCES

Mr. T. A. Smith
IMC Agrico Company, Inc.
P. O. Box 2000
Mulberry, Florida 33860-1100

October 26, 1999

RE: DHR Project File No. 997680
A Cultural Resource Assessment Survey of IMC-Agrico Co.'s Ona Mine DRI, Hardee County, Florida. By Southeastern Archaeological Research, Inc. August 1999.

Dear Mr. Smith:

In accordance with this agency's responsibilities under Section 380.06, Florida Statutes as implemented through 1A-46 *Florida Administrative Code*, we have reviewed the results of the field survey of the referenced project and find them to be complete and sufficient.

We note that three historic structures, 8HR746, 8HR747, 8HR748 and 23 archaeological sites (8HR720-742), were located and assessed as a result of this survey. We concur with the determinations in the report that none of these sites are eligible. It is therefore the opinion of this agency that the proposed project will have no effect on sites listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical or archaeological value.

If you have any questions concerning our comments, please contact Ms. Robin Jackson, Historic Sites Specialist at (850) 487-2333 or 1-(800) 847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

for George W. Percy, Director
Division of Historical Resources

GWP/Jrj

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Department of Law Enforcemen
Department of Highway Safety and Motor Vehicle
Department of Veterans Affair

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DIVISION OF HISTORICAL RESOURCES

Mr. T. A. Smith
IMC Agrico Company
P. O. Box 2000
Mulberry, FL 33860-1100

December 17, 1999

RE: DHR Project File No. 997883
A Cultural Resource Assessment Survey of Two Additions to IMC-Agrico's Co.'s Ona Mine DRI, Hardee County, Florida. By Southeastern Archaeological Research, Inc., October 1999.

Dear Mr. Strain:

In accordance with this agency's responsibilities under Section 380.06, Florida Statutes, as well as those contained in Chapter 267.061, Florida Statues, implemented through 1A-46 *Florida Administrative Code*, we have reviewed the results of the field survey of the referenced project and find them to be complete and sufficient.

We note that one archaeological site, 8HR762, Ona Mine #12 site and one historic structure, 8HR763, 1536 McLeod Road, were located and assessed as a result of the above referenced survey. We concur with the determinations in the report that 8HR762 and 8HR 763 are not eligible. It is therefore the opinion of this agency that no historic properties are located within the proposed project area.

If you have any questions concerning our comments, please contact Ms. Robin Jackson, Historic Sites Specialist at (850) 487-2333 or 1-(800) 847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Lana A. Kammerer

for

Janet Snyder Matthews, Ph.D, Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Jrj

RECEIVED BY
T. A. SMITH

DEC 21 1999

FILE Ona Out Parcels
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Department [redacted]nue
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Department of Highway Safety and Motor Vehicles
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Katherine Harris
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Jordan Amerman
Janus Research
2935 1st Avenue North
St. Petersburg, Florida 33713

May 15, 2000

RE: Cultural Resource Assessment Survey Review Request: *Limited Excavations at 8HR5: An Archaeological Site Located on Mississippi Chemical Corporation Property in Hardee County, Florida*

Dear Mr. Amerman:

In accordance with this agency's responsibilities under Section 380.06, Florida Statutes, we have reviewed the information in the Florida Master Site File to determine whether any historic properties are recorded in the referenced project area, and also to determine the potential for such properties which are presently unrecorded to be located within it.

Results of the investigations conducted at the archaeological site 8HR5 indicate that 12% of the midden deposit and 6% of the entire site, as identified, was excavated. The portion of the site not comprised of midden constituted a sparse lithic scatter. It was determined that the excavations recovered a sufficient sample of the data of scientific importance from this site. Therefore, it was concluded that the cultural resource has been sufficiently mitigated. After careful evaluation of this report, it is the opinion of this agency that the site 8HR5 has been adequately mitigated and we concur with the findings.

If you have any questions concerning our comments, please contact Brian Yates, Historic Sites Specialist, at (850) 487-2333 or 1-800-847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews, Ph.D., Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Yby

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Department of Veterans' Affairs

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Secretary of State

DIVISION OF HISTORICAL RESOURCES

Mr. Robert H. Kinsey
Director Operations Support
IMC Agrico Company
P. O. Box 2000
Mulberry, FL 33860

June 12. 2000

RECEIVED BY:
R.H. KINSEY
JUN 20 2000

COPIES_____
ROUTE TO_____

RE: DHR Project File No. 2000-04186
Consolidated Development Application, Ona Mine, Hardee County, Florida. April 2000

Dear Mr. Kinsey:

In accordance with this agency's responsibilities under Section 380.06, Florida Statutes, we have reviewed the above referenced document to determine whether any eligible archaeological or historical resources are recorded in the project area.

We note that several cultural resource surveys have been conducted of the IMC-Agrico's Ona Mine property. We concur with the findings and conclusions that no historic properties have been located within the proposed project area. However, we further note that the portion of the project area originally surveyed during the 1970's, at which time the property was owned by the Mississippi Chemical Corporation (MCC), is to be resurveyed. The original survey does not meet current standards. The new cultural resource assessment survey will be conducted to insure that no significant sites were missed during the 1970's work. The anticipated date for the new survey is mid 2000, after submittal and approval of the proposed survey methodology.

We look forward to continuing to work with you on this project. If you have any questions concerning our comments, please contact Ms. Robin Jackson, Historic Sites Specialist at (850) 487-2333 or 1-(800) 847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews, Ph.D., Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Jrj
xc: Brian Sodt, CFRPC

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Mr. T. A. Smith
Chief Mine Development Engineer
IMC-Agrico Company
P. O. box 2000
Mulberry, FL 33860-1100

June 12, 2000

RE: DHR Project File No. 2000-04161
A Cultural Resource Assessment Survey of Six Additions to IMC-Agrico Company's Ona Mine DRI, Hardee County, Florida. By Southeastern Archaeological Research, Inc., April 2000.

Dear Mr. Smith:

In accordance with this agency's responsibilities under Section 380.06, Florida Statutes, as well as those contained in Chapter 267.061, *Florida Statutes*, implemented through 1A-46 *Florida Administrative Code*, we have reviewed the results of the field survey of the referenced project and find them to be sufficient. Please have Florida Master Site File Forms (and location maps), for the two recorded sites (8HR733 and 8HR761) forwarded to this office. In addition, we are requesting a project location map for the Florida Master Site File Log Sheet, in order to make the report complete. Please forward these to the attention of Ms. Robin Jackson, at the address below, and reference File No:2000-04161. When we receive these documents we will forward the report to the Florida Master Site File.

We note that two archaeological sites, 8HR733 (Ona Mine #13 Site), and 8HR761 (Ona Mine #14), were located and assessed as a result of the above survey. Neither site was determined to be eligible. We concur with the findings and recommendation contained in the above report. It is therefore the opinion of this agency that no historic properties are located within the proposed project area.

If you have any questions concerning these comments, please contact Ms. Robin Jackson, Historic Sites Specialist at (850) 487-2333 or 1-(800) 847-7278. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews, Ph.D., Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Jrj

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

October 30, 2000

Mr. D. Ray Eubanks
Community Program Administrator
Florida Department Community Affairs
2555 Shumard Oaks Boulevard
Tallahassee, Florida 32399-2100

Dear Mr. Eubanks:

Re: File No. ADA-700-019, IMC Ona Mine

Thank you for your recent inquiry requesting a determination of whether the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida claim any interest in the submerged lands located within the boundaries of the proposed activity, located in Sections 4, 8-17, 19, 20, 22-31, and 36, Township 34 South, Range 23 East, and Sections 14-23, and 26-33, Township 34 South Range 24 East, Hardee County.

Our records indicate that Horse Creek, the West Fork of Horse Creek, Brushy Creek, Oak Creek, Hickory Creek, and numerous isolated prairie wetlands and grassy ponds are located at this site. Based on surveying records of the Government Land Office the submerged lands lying below the ordinary high water line (OHWL) of Horse Creek within the boundaries of the proposed activity are sovereignty lands of the State of Florida. Therefore, pursuant to Section 253.77 (1), F.S. any activity occurring waterward of the OHWL will require authorization to use state owned lands.

Our records currently have insufficient information and documentation to determine whether the West Fork of Horse Creek, Brushy Creek, Oak Creek, Hickory Creek, or the numerous isolated wetlands within the project boundaries are navigable and, thus, state owned. Therefore, submittal of information to obtain authorization to use state owned sovereignty lands is not recommended at this time. However, an environmental resource permit may be required prior to conducting your activity. Therefore, please submit this letter to the appropriate agency processing your environmental resource permit application. In the event the West Fork of Horse Creek, Brushy

Creek, Oak Creek, Hickory Creek, or the numerous isolated wetlands within the project boundaries are determined to be navigable and therefore state owned, then the proprietary requirements of the Board of Trustees for state owned waterbodies, if any, would apply. We will notify you if that is the case.

Thank you again for your inquiry. If this office can be of any further assistance regarding this determination, please address your questions to Melanie Knapp, Planner II, mail station No. 108 at the above letterhead address, or by telephone at (850) 488-8123.

Sincerely,

Terry E. Wilkinson, Chief
Bureau of Survey and Mapping
Division of State Lands

TEW/mjk
Cc: Christine Keenan, Bureau of Mine Reclamation
F:\TITLE\Melanie\2000-4\IMCOnaMine.doc

Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

February 7, 2001

David K. Deitrich, Esquire
Dye, Deitrich, Prather, Petruff
& St. Paul, P.A.
1111 Third Avenue West Suite 300
Bradenton, FL. 34205

Re: IMC Conservation Easement

Dear Mr. Deitrich:

Attached please find the original executed conservation easement and first amendment to the conservation easement.

Please record and return to me at your earliest convenience. If you require anything further to complete your file please let me know. I can be reached at (850) 488-2351. Thank you for your assistance in brining this matter to closure.

Sincerely,

Adrienne Bellflower
Land Acquisition Agent
Bureau of Land Acquisition

cc:file
cc:Deedra Allen, P.E., J.D. w/attachments

PERPETUAL CONSERVATION EASEMENT

THIS DECLARATION OF PERPETUAL CONSERVATION EASEMENT is made this 1st day of December, 2000, by **FP ONE CORPORATION** and **FP TWO CORPORATION**, whose mailing address is 767 5th Avenue, 16th Floor, New York, NY 10153 ("Grantor") for the benefit of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida, whose address is the Douglas Building, 3900 Commonwealth Blvd., Mail Station 100, Tallahassee, Florida 32399-3000, hereinafter referred to as "the Grantee

As used herein, the term "Grantor" shall refer to the owner or successor in ownership of the lands in this Agreement, more particularly described in **Exhibits A** and **B** and made a part of the Agreement by this reference, hereinafter referred to as the "Protected Property", and "State of Florida" shall refer to the state board named above or any successor agency or authority which assumes or is charged with the authority and duties exercised by and imposed upon the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida on the date of execution of this Agreement.

WITNESSETH:

WHEREAS, the State of Florida has determined that protection of a planned habitat area and wildlife corridor, also known as the Integrated Habitat Network, throughout central Florida is highly desirable as in the public interest; and

WHEREAS, the Grantor's property contains property that falls within the FDEP Integrated Habitat Network; FFWCC Closing the Gaps "Study Corridor" areas and/or SWFWMD Core habitat Corridor Designation; and

WHEREAS, the Grantor and the Grantee mutually recognize the natural, scenic and special character of the Protected Property including, if any, preserved wetlands, associated uplands and the reclaimed planned habitat areas that it contains or will contain following, and as part of, the reclamation process and have the common purpose of conserving certain natural values and character of the Protected Property by conveyance to the Grantee of a Perpetual Conservation Easement and the prohibition of certain development activities, all of which shall run with the land, on, over, and across the Protected Property, which shall conserve the value, character, ecology and hydrological integrity; shall conserve and protect the animal and plant populations; and shall prohibit certain further development activity on the Protected Property, hereinafter collectively referred to as "the conservation purposes," and

WHEREAS, the Grantor has voluntarily elected to enter into this Perpetual Conservation Easement to provide protection to the Protected Property; and

WHEREAS, the Grantor will provide maintenance for the Protected Property during the time of its mining and reclamation activity as specified herein and under Section 378.035(6)(a) Florida Statutes, the State of Florida or its designee will provide maintenance for the Protected Property thereafter;

Approved for Closing
By: _____
DEP Attorney
Date: 1-31-01

WHEREAS, the Grantor and the Grantee agree that the DEP, Bureau of Mine Reclamation, will be the agency responsible for monitoring this Perpetual Conservation Easement.

NOW, THEREFORE, the Grantor hereby voluntarily creates and assigns a Perpetual Conservation Easement on the Protected Property together with the prohibition of certain development activities, except as reserved herein, on, over, and across the Protected Property for the purposes as set forth above, and pursuant to Section 704.06, Florida Statues.

I. GENERAL PROVISIONS

1. **Duration of Perpetual Conservation Easement.** The Grantor grants unto Grantee and its successors and assigns this Perpetual Conservation Easement to have and to hold in perpetuity. This is an easement in gross, runs with the land and is enforceable by the Grantee against the Grantor, its successors and assigns, lessees, agents, licensees, and subsequent grantees.

2. **Successors and Assigns.** The terms Grantor and Grantee as used herein shall include, without limitation, the successors and grantees of the Grantor and Grantee and the covenants, terms, conditions, and restrictions of the Perpetual Conservation Easement shall be binding upon and inure to the benefit of such successors and shall continue as a servitude running with the land in perpetuity with the Protected Property.

3. **Legal Description.** Perpetual Conservation Easement to be Granted at Time Mining is Initiated: IMC Phosphates Company, on behalf of Grantor, shall prepare an accurate legal description of the Protected Property as described in **Exhibit A** of this Agreement which shall be recorded in the Public Records of Manatee County, Florida as an amendment to this Instrument. This Conservation Easement on the areas in **Exhibit A** not to be disturbed by mining or mining related activities—covering about 182 acres—shall be recorded within six (6) months of the execution of this Agreement.

Perpetual Conservation Easement to be Granted at Time of Reclamation Release:
IMC Phosphates Company, on behalf of Grantor, shall prepare an accurate legal description of the Protected Property as described in **Exhibit B** of this Agreement which shall be recorded in the Public Records of Manatee County, Florida as an amendment to this Instrument. This Conservation Easement on reclaimed areas in **Exhibit B**—covering about 339 acres—shall be recorded within six (6) months of the release of reclamation and/or mitigation responsibility by all applicable regulatory agencies.

4. **Violations, Remedies, and Enforcement.** In the event of a violation of the terms and conditions hereof, the Grantor or Grantee shall give written notice to the other party. The other party shall have the right to cease or cure the violation without penalty. If the party in violation does not cease or cure the violation within thirty (30) days after receipt of such written notice, the terms and conditions hereof may be enforced by the complaining party by suit for injunctive relief or for other appropriate remedy at law or equity to require the restoration of the Protected Property to the condition that existed prior to any injury. If Grantee reasonably determines that circumstances require immediate action to prevent or mitigate significant damage to the Protected Property, Grantee may pursue its remedies under this paragraph without waiting for the period provided for cure to expire. The remedies described in this paragraph shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity. In the event such violation cannot be cured within this thirty (30) day period and the party in violation is expeditiously proceeding with said cure, then the time period shall be extended by such a time as would be reasonable to complete the cure.

5. **Amendment.** The terms and conditions hereof may be modified only by mutual agreement in writing between the Grantor and the Grantee or their respective successors or assigns.

6. **Future Consistent Uses.** The purpose of this Perpetual Conservation Easement is to preserve the Protected Property in its current condition (natural land) or reclaimed condition (reclaimed land), and its scenic, open, agricultural or wooded conditions as the case may be and to preserve existing or reclaimed uses as habitat for fish, wildlife, and plants. Future uses consistent with these purposes shall be permitted. Except where otherwise provided for herein, future uses inconsistent with these purposes shall be prohibited.

7. **Liability/Indemnification.** The Grantee agrees to indemnify and hold the Grantor harmless from any and all liability, loss, damage, expense, or judgment (including attorney's fees and costs) arising out of any negligent or willful action or activity of the Grantee, its agents, its employees, or other invitees while on the Protected Property or exercising its right hereunder. The Grantee further agrees to indemnify and save the Grantor harmless from any and all liability, loss or claim resulting from a personal injury or death to agents or employees or any other party on the Protected Property at the invitation of the Grantee or its assigns. Nothing contained herein shall be construed as an indemnity or as a waiver of sovereign immunity enjoyed by the Grantee, as provided in Section 768.28, Florida Statues, as amended from time to time, or any other law providing limitations on claims against the State. Further, the Grantor agrees to indemnify and hold the Grantee harmless from any and all liability, loss, damage, expense, or judgment (including attorney's fees and costs) arising out of any grossly negligent or willful action or activity of the Grantor, its agents, its employees, or other invitees while on the Protected Property or exercising its right hereunder.

8. **Easement Documentation Report.** Grantor and Grantee acknowledge that an Easement Documentation Report (Report) of the Protected Property has been or will be prepared by IMC Phosphates Company on behalf of the Grantor, within six (6) months following the date of the execution of this Perpetual Conservation Easement for the areas described in **Exhibit A** and within six (6) months following the date of the release of reclamation responsibility for the areas described in **Exhibit B**. The Report, after approval by the Grantee and Grantor, shall serve as an accurate representation of the physical, ecological and biological condition of the Protected Property at the time of this grant. The Report will be placed and retained on file with Grantee as a public record and a copy will be provided to Grantor. In the event a controversy arises with respect to the nature and extent of the physical or biological condition of the Protected Property, the parties may utilize the Report and any other relevant documents, surveys, photographs or other information to assist in the resolution of the controversy. The Report, however, shall serve as the principal baseline for the biological, ecological, and physical condition of the Protected Property on the date of this Perpetual Conservation Easement. The Report and other documents, surveys, photographs or other information documenting the status of the Protected Property at the date of this grant provided to Grantee by Grantor are available for inspection at the offices of the Division of State Lands, Department of Environmental Protection and/or Department of Environmental Protection, Bureau of Mine Reclamation in Tallahassee, Florida, and are incorporated herein and made a part of the Perpetual Conservation Easement by reference. The Grantor shall have no obligation to improve the ecological condition above that which is documented in the Easement Documentation Report.

9. **Ad Valorem Taxation/Assessments.** The Grantor agrees to make timely payment of all ad valorem taxes on its interest in the Protected Property so long as it retains fee simple title to the Protected

5. **Amendment.** The terms and conditions hereof may be modified only by mutual agreement in writing between the Grantor and the Grantee or their respective successors or assigns.

6. **Future Consistent Uses.** The purpose of this Perpetual Conservation Easement is to preserve the Protected Property in its current condition (natural land) or reclaimed condition (reclaimed land), and its scenic, open, agricultural or wooded conditions as the case may be and to preserve existing or reclaimed uses as habitat for fish, wildlife, and plants. Future uses consistent with these purposes shall be permitted. Except where otherwise provided for herein, future uses inconsistent with these purposes shall be prohibited.

7. **Liability/Indemnification.** The Grantee agrees to indemnify and hold the Grantor harmless from any and all liability, loss, damage, expense, or judgment (including attorney's fees and costs) arising out of any negligent or willful action or activity of the Grantee, its agents, its employees, or other invitees while on the Protected Property or exercising its right hereunder. The Grantee further agrees to indemnify and save the Grantor harmless from any and all liability, loss or claim resulting from a personal injury or death to agents or employees or any other party on the Protected Property at the invitation of the Grantee or its assigns. Nothing contained herein shall be construed as an indemnity or as a waiver of sovereign immunity enjoyed by the Grantee, as provided in Section 768.28, Florida Statues, as amended from time to time, or any other law providing limitations on claims against the State. Further, the Grantor agrees to indemnify and hold the Grantee harmless from any and all liability, loss, damage, expense, or judgment (including attorney's fees and costs) arising out of any grossly negligent or willful action or activity of the Grantor, its agents, its employees, or other invitees while on the Protected Property or exercising its right hereunder.

8. **Easement Documentation Report.** Grantor and Grantee acknowledge that an Easement Documentation Report (Report) of the Protected Property has been or will be prepared by IMC Phosphates Company on behalf of the Grantor, within six (6) months following the date of the execution of this Perpetual Conservation Easement for the areas described in **Exhibit A** and within six (6) months following the date of the release of reclamation responsibility for the areas described in **Exhibit B**. The Report, after approval by the Grantee and Grantor, shall serve as an accurate representation of the physical, ecological and biological condition of the Protected Property at the time of this grant. The Report will be placed and retained on file with Grantee as a public record and a copy will be provided to Grantor. In the event a controversy arises with respect to the nature and extent of the physical or biological condition of the Protected Property, the parties may utilize the Report and any other relevant documents, surveys, photographs or other information to assist in the resolution of the controversy. The Report, however, shall serve as the principal baseline for the biological, ecological, and physical condition of the Protected Property on the date of this Perpetual Conservation Easement. The Report and other documents, surveys, photographs or other information documenting the status of the Protected Property at the date of this grant provided to Grantee by Grantor are available for inspection at the offices of the Division of State Lands, Department of Environmental Protection and/or Department of Environmental Protection, Bureau of Mine Reclamation in Tallahassee, Florida, and are incorporated herein and made a part of the Perpetual Conservation Easement by reference. The Grantor shall have no obligation to improve the ecological condition above that which is documented in the Easement Documentation Report.

9. **Ad Valorem Taxation/Assessments.** The Grantor agrees to make timely payment of all ad valorem taxes on its interest in the Protected Property so long as it retains fee simple title to the Protected

Property. The Grantor and Grantee mutually acknowledge that the Protected Property will continue to be utilized for certain agricultural uses as set forth in this Perpetual Conservation Easement and as such the Grantor shall continue to be entitled to file for "Greenbelt/ Agricultural" ad valorem tax status or such other appropriate tax status. Further, the Grantor agrees to pay any assessments, fees or charges of whatever description levied against the Protected Property by competent authority.

10. **Recording.** Pursuant to Section 704.06 Florida Statutes, IMC Phosphates Company, on behalf of the Grantor, shall record the Perpetual Conservation Easement in the Official Records of Manatee County, Florida and pay the documentary and/or recording fees.

11. **Warranty and Title.** The Grantor hereby warrants that it is fully vested with fee simple title to the Protected Property subject to taxes for 2000 and subsequent years, restrictions, reservations and easements of record and unrecorded lease to IMC Phosphates Company.

12. **Notices.** Any notice, demand, consent, or communication that either party is required to give to the other hereunder, shall be in writing and either served personally by hand delivery, by confirmed overnight courier, or by registered or certified mail, postage prepaid, addressed as follows:

To the Grantor:	FP One Corporation FP Two Corporation 767 5th Avenue, 16th Floor New York, NY 10153
With Copy to:	Patricia A. Petruff, Esquire Dye, Deitrich, Prather, Petruff & St. Paul, P.L. P.O. Box 9480 Bradenton, FL 34206
To the Grantee:	Secretary, Department of Environmental Protection 3900 Commonwealth Blvd., MS 10 Tallahassee, FL 32399
With Copy to:	Director, Division of State Lands Department of Environmental Protection 3900 Commonwealth Blvd., MS 100 Tallahassee, FL 32399
With Copy to:	Bureau Chief, Bureau of Mine Reclamation Department of Environmental Protection 2051 E. Dirac Drive Tallahassee, FL 32310

13. **No Waiver of Regulatory Authority.** Nothing herein shall be construed to restrict or abrogate the lawful regulatory jurisdiction or authority of the Grantee or other federal or state agencies.

14. **Approval or Concurrence.** The parties agree that each party will respond within a reasonable time and a reasonable manner when approval or concurrence or agreement is requested by the other party. If any party in good faith believes that another party has not responded in a reasonable time or is unreasonably withholding approval or concurrence, the matter may immediately be submitted for arbitration at the discretion of the party claiming damages.

15. **Enforceability.** This Perpetual Conservation Easement may be enforced by Grantee—as provided in Section 704.06, Florida Statutes—and by Grantor.

16. **Maintenance Responsibility.** Maintenance of the Protected Property as subsequently defined by legal description as required in paragraph 3 above, will be the responsibility of IMC Phosphates Company, on behalf of Grantor, through the time reclamation is released by all applicable regulatory agencies, and thereafter will be the responsibility of Grantee.

II. RIGHTS RESERVED TO THE GRANTOR

The Grantor reserves in perpetuity, and reserves for its successors and assigns in perpetuity, the following reserved rights, which may be exercised at any time in accordance with the provisions of this Perpetual Conservation Easement:

1. **Livestock Grazing.** The Grantor shall have the right to use of the Protected Property for the breeding, raising, pasturing and grazing of livestock provided that these activities are consistent with sustainable native range management practices (for example, practices described in "Determining Grazing Capacity for Native Range, Fact Sheet FRC-31" by George W. Tanner 1983, RFAS-CES). "Sustainable native range practices" are defined as those which allow native grasses and other native forage species to regenerate such that grazing capacity of the land is naturally renewed. Alternatively, participation in the Florida Forest Stewardship Program administered by the Florida Department of Agricultural and Consumer Services Division of Forestry on or after the date of this Agreement, or a similar program approved by FDEP that considers sustainable grazing shall also satisfy the required standards for such activities. The Grantor has the right to excavate livestock ponds and establish and construct fences, livestock pens, and any and all other related structures and activities necessary for the livestock operation, subject to obtaining all consents and permits required therefore. Excavation of livestock ponds shall be restricted to upland areas and shall not be connected to waters of the state. Control burning as part of range management, using best management practices, is allowable.

2. **Sale of Protected Property.** Grantor, its successors and assigns, shall have the right to sell or otherwise convey the Protected Property.

3. **Sustainable Harvesting.** Sustainable opportunistic harvesting shall be defined as the collection of naturally produced and renewable foods, plants, pharmaceuticals, or other materials such as fruits, seeds, flowers, herbs and wetland plant species, and shall be allowed in a manner that allows for the resource to regenerate naturally without significantly reducing the potential for future harvest. This shall not apply to exotic or non-native plants and species.

4. **Listed Plant and Wildlife Species Relocation.** Grantor shall have the right to relocate listed plant and wildlife species from offsite locations to appropriate areas within the Protected Property in accordance with all applicable federal, state, and local laws, rules and regulations.

5. **Haying and Sodding.** Haying and sodding shall be permitted only in upland pastures and/or disturbed areas as established in the Easement Documentation Report required by Section I, paragraph 8 above.

6. **Silvaculture.** Grantor shall have the right to conduct logging and associated activities consistent with sustainable silviculture practices in accordance with the most current Best Management Practices. "Sustainable silviculture" is defined as logging practices that maintain a canopy structure of trees typical of natural central Florida flatwoods without damaging the ability of native ground cover, shrubs or trees to maintain their ecological integrity and intact community structure and the ability to successfully reproduce or regenerate. Alternatively, participation in the Florida Forest Stewardship program administered by the Florida Department of Agriculture and Consumer Services, Division of Forestry, or a similar program approved by Florida Department of Environmental Protection (DEP) that considers sustainable forestry, shall also satisfy the required standards for such activities. Notwithstanding the above, no live cypress or hardwood trees shall be harvested.

7. **Hunting and Fishing.** The Grantor retains all hunting and fishing rights, including the right to lease same, as well as the right to control nuisance animals on the Protected Property provided that all hunting, hunting leases, and associated facilities shall be administered in a manner consistent with current management practices; or in the alternative pursuant to a wildlife management plan, for hunting and fishing purposes only, which is mutually acceptable to the Florida Fish and Wildlife Conservation Commission and the Grantor.

8. **Recreational Activities.** Grantor, its successors or assigns, shall have the right to utilize the property for all resource-based recreational activities including, but not limited to, hunting, fishing, nature parks, boating, horseback riding, swimming, hiking and other related activities and for facilities related to such uses.

9. **Environmental Education.** Grantor, its successors and assigns, shall have the right to utilize the property for environmental resource or environmental educational facilities which do not significantly disturb the Protected Property.

10. **Quiet Use and Enjoyment.** Grantor retains all rights to use the Protected Property provided such use is not inconsistent with any other provisions of this document.

11. **Permitting Wells.** Grantor shall have the right to apply for the construction and continued operation of wells on the Protected Property in accordance with all applicable federal, state, and local laws.

12. **Consistent Uses.** The parties hereto understand and agree that the Grantor is retaining all rights to certain real property which is contiguous to and/or near the Protected Property. Nothing contained herein shall restrict or otherwise prohibit the Grantor from utilizing existing features, uses or areas of the Protected Property in a manner consistent with the use of the contiguous real property which has been retained by the Grantor. For example, in the event Grantor cultivates a crop on the contiguous property where all rights have been retained, Grantor shall have the right to transport such crop across the Protected Property utilizing existing roads.

III. PROHIBITED / RESTRICTED USES

1. **Construction.** Unless otherwise provided for in this document, there shall be no further new construction of or placement of new buildings, roads, signs, billboards, or other advertising, or other structures on or above the ground of the Protected Property, except that Grantor shall have the right to excavate livestock ponds and to maintain any and all existing buildings, roads, fences, ponds, and drainage ditches, and to construct and operate barns, fences, dirt access roads for maintenance purposes and other structures, facilities, wells, and/or activities necessary or useful to silviculture, livestock grazing, agricultural purposes, and related activities, in appropriate areas, subject to obtaining all consents and permits lawfully required therefore. "Maintenance" of roads, ponds, and drainage ditches shall include the right to clear, dredge, improve and/or reconstruct roads, ponds, and drainage ditches of similar sizes and types on or near the current locations.

2. **Transfer of Development Rights.** There shall be no transfer of any development rights or density credits from the Protected property to any other property, including but not limited to properties lying within the adjacent and surrounding area owned by the Grantor, any other person, entity or like. Notwithstanding the foregoing, any and all rights reserved to the Grantor, as set forth herein, shall remain in full force and effect on the Protected Property.

3. **Dumping.** Except as provided by law, there shall be no dumping or placing of soil, trash, liquid or solid waste (including sludge), or unsightly, offensive, or hazardous materials, wastes or substances, toxic wastes or substances, pollutants or contaminants, including, but not limited to, those as defined by the Resource Conservation and Recovery Act, 42 USC Section 6901-6991, or the Comprehensive Environmental Response, Compensation and Liability Act, 42 USC Section 960 1-9674, as amended by the Superfund Amendments and Reauthorization Act of 1986, or any Florida Statute defining hazardous materials, wastes or substances, toxic wastes or substances, pollutants or contaminants (hereinafter collectively referred to "Contaminants") on the Protected Property. However, this provision shall not be construed to prevent the deposit of animal wastes generated on the Protected Property.

4. **Exotics.** There shall be no planting of nuisance exotic or non-native plants as listed by the Exotic Pest Plant Council (EPPC), except pasture grasses approved for domestic use. There shall be control of nuisance exotics or non-native plants on the Protected Property to the extent that it is economically practical in the Grantor's opinion. Management and control applies to the following: Brazilian Pepper, Melaleuca, Japanese and Old World Climbing Fern, Skunk Vine, Tropical Soda Apple, Cogon Grass, Torpedo Grass, Air Potato, and Kudzu.

5. **Pesticides/Herbicides.** Only pesticides and herbicides approved by the United States Department of Agriculture may be used on the Protected Property and such pesticides and herbicides shall be used only in accordance with current label instructions and in accordance with current governmental laws and regulations.

6. **Endangered Species.** There shall be no intentional adverse impacts to threatened or endangered species, or species of special concern which have been specifically identified as such by any United States or State of Florida agency.

7. **Archaeological, Cultural or Historic Sites.** There shall be no intentional destruction or damage to any sites of archaeological, cultural, or historical significance, when any such sites have been specifically identified as such by any United States or State of Florida agency, unless authorized or approved by the appropriate official of the State of Florida having jurisdiction thereover.

8. **Citrus, Truck/Row Crops.** None of the Protected Property contains citrus, truck/row crops at the inception of the Conservation Easement. Initiation of citrus production activity and/or the planting of truck crops or row crops on the Protected Property is hereby prohibited.

IV. RIGHTS OF THE GRANTEE

1. **Monitoring for Conservation Easement Compliance.** The Grantor shall not interfere with the DEP in the monitoring and enforcement of the terms and conditions hereof. The DEP and its agents, employees and assigns, at reasonable intervals, at reasonable times, and upon 10 days written notice, may enter upon, over and across the Protected Property on official business for the purpose of monitoring compliance with the terms and conditions thereof so long as such entry does not interfere with the rights and uses of the Protected Property retained by the Grantor.

2. **Right to Maintain Protected Property.** In the event the Grantor ceases to maintain the Protected Property in accordance with this Perpetual Conservation Easement or in the event the Grantee elects to perform more extensive maintenance than the Grantor is obligated to perform, the Grantee and/or DEP shall have the right to enter upon the Protected Property, to take any and all necessary and appropriate actions to maintain or enhance the resource values of the Protected Property, without forfeiting any other rights or remedies granted under this Conservation Easement.

3. **Public Access.** The Grantee shall not have the right to allow the general public on the Protected Property at any time without the prior written consent of the Grantor.

IN WITNESS WHEREOF, Grantor has executed this Agreement on this 1ST day of December, 2000.

Executed and delivered in our presence:

Witness as to both FP One Corporation
and FP Two Corporation
Print name Pete Madden

Witness as to both FP One Corporation
And FP Two Corporation
Print name Dora Segal

FP ONE CORPORATION, a
Delaware corporation

BY: James P. Peyton
its VICE PRESIDENT

FP TWO CORPORATION, a
Delaware corporation

BY: James P. Peyton
its VICE PRESIDENT

STATE OF NEW YORK
COUNTY OF New York

The foregoing instrument was acknowledged before me this 1st day of December 2000, by JAMES I PEYTON, VICE PRESIDENT of FP ONE CORPORATION and FP TWO CORPORATION, Delaware corporations, on behalf of the corporation. He/~~she~~ is personally known to me. ~~or has produced _____ as identification.~~

Margaret L. Carson
Signature of Notary

MARGARET L. CARSON
Notary Public, State of New York
No. 01CA6047240
Qualified in Queens County
Certificate Filed in New York County
Commission Expires August 28, 2002

Executed and delivered in our presence:

BOARD OF GRANTEE TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

By: _____
Director, Division of State Lands,
Department of Environmental Protection,
As agent for and on behalf of the Board of
Trustees of the Internal Improvement Trust
Fund of the State of Florida.

Reviewed and approved by the Office of
General Counsel this 31 day of
January, ~~2000~~ 2001

Lowood
WITNESS (Signature)

E.W. WOOD
WITNESS (Printed Name)

Terry L Johnson
WITNESS (Signature)

Terry L. Johnson
WITNESS (Printed Name)

I:\Docs\IMC\PERPETUAL CONSERVATION EASEMENT(clean copy).doc

APPROVED AS TO
FORM & LEGALITY
A Blackwell
DEPARTMENT ATTORNEY
1-31-01

Prepared by and return to:
Sandra P. Stockwell
Assistant General Counsel
Department of Environmental Protection
3900 Commonwealth Blvd., Mail Station 115
Tallahassee, Florida 32399-3000

FIRST AMENDMENT TO PERPETUAL CONSERVATION EASEMENT

For and in consideration of $10.00 and other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the parties enter into this First Amendment to Perpetual Conservation Easement to amend certain provisions of that Perpetual Conservation Easement granted by FP One Corporation and FP Two Corporation to the Board of Trustees of the Internal Improvement Trust Fund dated December 1, 2000, and recorded at Official Record _____, page _____, of the Public Records of Manatee County, Florida (the "Perpetual Conservation Easement").

Now, therefore, the parties agree:

1. Pursuant to the provisions of section I.3 of the Perpetual Conservation Easement Exhibit "A" to this First Amendment constitutes an accurate legal description of the Protected Property as described in Exhibit A of the Perpetual Conservation Easement; Exhibit "A" to this First Amendment is hereby incorporated by reference and forms a part of this First Amendment.

2. Section I. 7 of the Perpetual Conservation Easement is hereby deleted and the following is inserted in its stead:
   7. Grantee shall be liable for all damages for which it is found legally responsible.

3. Section I. 15 of the Perpetual Conservation Easement is hereby deleted.

4. The last sentence of section II.3. is amended to read, "The limitation on harvesting contained in this section shall not apply to exotic or non-native plants and species."

5. Section II.10 is amended to read, "Quiet Use and Enjoyment. Grantor retains all rights to use the Protected Property provided such use is not inconsistent with any other provisions of this document or the purposes of this Perpetual Conservation Easement."

6. Section III.2. is amended to add, "Nor shall any development rights or density credits be transferred to the Protected Property from any other property."

7. Except as specifically provided in this First Amendment, all other provisions of the Perpetual Conservation Easement remain in full force and effect.

IN WITNESS WHEREOF, the parties have executed this First Amendment to Perpetual Conservation Easement on the day and year indicated below.

Approved for Closing
By: S P Stockwell
DEP Attorney
Date: 1-31-01

Witnessed as to both corporations:

Signature of first witness

Debra I SEGAL
Printed name of first witness

Signature of second witness

Pete Maulden
Printed name of second witness

FP ONE CORPORATION

James P Peyton
By James P. Peyton as Vice President

FP TWO CORPORATION

James P Peyton
By James P. Peyton as Vice President

STATE OF NEW YORK
COUNTY OF NEW YORK

The foregoing instrument was acknowledged before me this 2nd day of January 2001, by James P. Peyton as Vice President of FP ONE CORPORATION and as vice president of FP TWO CORPORATION, on behalf of the corporation. He is personally known to me ~~or has produced~~ _____ ~~as identification~~.

Cynthia L. Morra
Notary Public
My Commission Expires: 3/30/01

(Notary Seal)

CYNTHIA L. MORRA
Notary Public, State of New York
No. 4783835
Qualified in New York County
My Commission Expires March 30, 2001

Witnessed:

Signature of first witness

E. W. Wood

Printed name of first witness

Signature of second witness

Terry L. Johnson

Printed name of second witness

BOARD OF TRUSTEES OF THE INTERNAL IMPROVEMENT TRUST FUND OF THE STATE OF FLORIDA

By Eva Armstrong as Director of the Division of State Lands of the Florida Department of Environmental Protection

STATE OF FLORIDA
COUNTY OF LEON

The foregoing instrument was acknowledged before me this 30th day of ~~January~~ February, 2001, by Eva Armstrong as Director of the Division of State Lands on behalf of the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida. She is personally known to me or has produced _____ as identification.

Notary Public
My Commission Expires:

(Notary Seal)

Sheryl P. Jones
MY COMMISSION # CC830855 EXPIRES
May 3, 2003
BONDED THRU TROY FAIN INSURANCE, INC.

APPROVED AS TO
FORM & LEGALITY

DEPARTMENT ATTORNEY
1-31-01

DIVISIONS OF FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Office of International Relations
Division of Elections
Division of Corporations
Division of Cultural Affairs
Division of Historical Resources
Division of Library and Information Services
Division of Licensing
Division of Administrative Services

MEMBER OF THE FLORIDA CABINET
State Board of Education
Trustees of the Internal Improvement Trust Fund
Administration Commission
Florida Land and Water Adjudicatory Commission
Siting Board
Division of Bond Finance
Department of Revenue
Department of Law Enforcement
Department of Highway Safety and Motor Vehicles
Department of Veterans' Affairs

FLORIDA DEPARTMENT OF STATE
Katherine Harris
Secretary of State

DIVISION OF HISTORICAL RESOURCES

March 14, 2001

T.A. Smith
IMC Phosphates Company
P.O. Box 2000
Mulberry, Florida 33860-1100

RE: DHR No. 2001-2514
Agency: Regional Planning Council
Project Name: *Phase I Cultural Resource Re-Assessment of Portions of IMC's Ona Mine Property*
Hardee County, Florida

Dear T.A. Smith:

In accordance with Section 380.06, *Florida Statutes*, and implementing state regulations, we have reviewed the referenced projects for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*, or otherwise of historical, architectural or archaeological value. The State Historic Preservation Officer (SHPO) is to advise and assist state agencies when identifying historic properties (listed or eligible for listing, in the *National Register of Historic Places*), assessing effects upon them, and considering alternatives to avoid or reduce the project's effect on them.

Results of the archaeological resources survey indicate that the survey resulted in the identification of 22 newly recorded resources (8HR769-777, 8HR779-783, 8HR790-793, 8HR795, 8HR797-799) and one previously recorded resource (8HR6) located in Hardee County. Of the total 23 sites discussed in this report, one site (8HR779) is considered potentially eligible for listing in the *National Register of Historic Places*. This is due to the potential to address regional research questions with information recovered from the site. Additional research is recommended for this site. The remaining 22 newly recorded and the single previously identified site are not considered significant and not eligible for listing in the *National Register*. No further work is recommended for these sites.

Results of the historic resources survey reported the identification of eight previously unrecorded resources (8HR784-787, 8HR789, 8HR794, 8HR796, and 8HR800). None of these resources were determined eligible for listing in the *National Register* based on their common designs and building types, compromised historic integrity, and lack of significant historical associations.

In addition, two cemeteries were reported to be present within the survey area: The Ratliff's Still Cemetery and the Dink Albritton Cemetery. Because of the presence of these cemeteries and identified wetlands within the subject tract, it was further recommended by Janus Research that, should construction activities uncover any human remains or unmarked burials, or other significant cultural features or archaeological materials, activity in the immediate area of the discovery should stop until a qualified professional archaeologist can evaluate the identified materials.

Based on the information provided in this report, we concur with these findings and determinations. Further, we find the submitted report complete and sufficient.

If you have any questions concerning our comments, please contact Brian Yates, Historic Sites Specialist, at byates@mail.dos.state.fl.us. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews, Ph.D., Director
Division of Historical Resources
State Historic Preservation Officer

JSM/Yby

xc: Kate Hoffman, Janus Research

Department of Environmental Protection

Jeb Bush
Governor

David B. Str
Secretary

May 18, 2001

Mr. Robert Kinsey
Manager, Operations Support
IMC- Phosphates Company
Post Office Box 2000
Mulberry, Florida 33860

Dear Mr. Kinsey:

Re: Proposed Ona Conservation Easement and Management Plan

We are in receipt of the additional information for the IMC-Ona Team Permitting Application. In your response, you have indicated that the landowners have volunteered a conservation easement deemed to be acceptable to the state. This letter is to notify you that the Department of Environmental Protection-Bureau of Mine Reclamation is committed to accept the easement. As done previously, the Bureau of Mine Reclamation and the Bureau of Land Acquisition will be available to assist IMC in the preparation of the Perpetual Conservation Easement, Easement Documentation Report and Easement Management Plan.

What follows is a brief explanation of the history, authority, current activities, and intent with respect to land acquisition and management involving the department's Bureau of Mine Reclamation (Bureau). In 1989, the Bureau became involved in land management as a result of the Coastal Petroleum Litigation Settlement which included transfer to the state of numerous lands along the Peace and Alafia River floodplains. Regulatory presence and familiarity with the central Florida phosphate district cast the Bureau into the role of overseeing the Coastal Petroleum Settlement transfer process. The Bureau is responsible for approximately 170 parcels of land comprising approximately 9,000 acres.

The authority for the Bureau to manage land is derived from paragraph 370.02 (3)(e) Florida Statutes (F.S.). Funds from the Nonmandatory Land Reclamation Trust Fund are authorized for land management by Section 378.035(6)(a) F.S. for phosphate lands that have been transferred in fee or which are subject to a conservation easement pursuant to Section 704.06 F.S. A formal Land Management Plan, inclusive of all leases and easements managed and/or monitored by the bureau, is currently being produced (see attachment).

Reclamation of wildlife habitat and restriction-from-mining of floodplains has severely limited value if not followed by long-term protection and management. The Bureau has the most knowledge and experience within the department relative to reclaimed land and the mining

district. Likewise, the Bureau has a secure funding source to enable the provision of basic land management for those lands within its auspices.

IMC and Bureau staff have been working on an ecosystem-based reclamation and habitat plan which would provide reasonable assurance of water quality protection and habitat restoration in the Ona mine. The placement of a conservation easement within the Ona Mine will strengthen that reasonable assurance.

Should you require clarification or have any questions regarding this matter, please call Mr. Orlando E. Rivera or me at (850)488-8217.

Sincerely,

Janine L Callahan
FOR
James W.H. Cates
Program Administrator

Attachments

cc: D. Allen
J. Llewellyn
J. Bakker
O. Rivera

United States
Department of
Agriculture

Natural
Resources
Conservation
Service

2614 N.W. 43rd St.
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January 23, 2002

Ms. Kathy Baumgaertner
Golder Associates Inc.
5100 West Lemon Street
Suite 114
Tampa, Florida 33609

Dear Ms. Baumgaertner:

Enclosed is Form AD-1006 with Parts II, IV and V completed for the IMC Phosphate's One mine. The areas which are in citrus is unique farmland, which is defined by the Farmland Protection Policy Act (FPPA). Completion of the project would take this farmland out of production. According to the FPPA, if the Federal Agency involved decides to fund the project, Parts VI and VII of the AD-1006 Form should be completed and returned to this office.

If there are additional questions, please contact me at the above address or by phone at 352-338-9535.

Sincerely,

Warren G. Henderson

Warren G. Henderson
State Soil Scientist

Enclosure

cc: Howard Richards, D.C., Wauchula Service Center

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 1/15/02
Name Of Project IMC Phosphate's Ona Mine	Federal Agency Involved US Army Corps of Engineers, Jacksonville
Proposed Land Use Phosphate Mining	County And State Hardee County, Florida
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 1-22-02 WDH

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply – do not complete additional parts of this form).* Yes ☑ No ☐		Acres Irrigated	Average Farm Size 334
Major Crop(s) Citrus	Farmable Land In Govt. Jurisdiction Acres: 56,500 %		Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used Soil Potential	Name Of Local Site Assessment System		Date Land Evaluation Returned By NRCS 1-23-02 WDH

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	209.2			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	209.2	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	209.2			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	< .5 %			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	23 %			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0 54	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b))*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	0			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	15			
6. Distance To Urban Support Services	15	15			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	0			
9. Availability Of Farm Support Services	5	2			
10. On-Farm Investments	20	10			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	0 67	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0 54	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0 67	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0 121	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side) Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff

APPENDIX D
IMC'S WETLAND RAPID ASSESSMENT PROCEDURE (WRAP) METHODOLOGY

IMC-AGRICO COMPANY

WETLAND RAPID ASSESSMENT PROCEDURE (IMC-WRAP)

A REVISION OF TECHNICAL PUBLICATION REG-001

ORIGINALLY PUBLISHED BY

NATURAL RESOURCE MANAGEMENT DIVISION
REGULATION DEPARTMENT
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

October 1998 Rev. 3

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PREFACE

The IMC-Agrico Wetland Rapid Assessment Procedure (IMC-WRAP) is an adaptation of the South Florida Water Management District Wetland Rapid Assessment Procedure (SFWMD WRAP) that customizes the assessment procedure to better fit the landform, vegetative cover, hydrology, and water quality issues encountered when regulatory agency applications are being considered for phosphate mining and reclamation sites in central Florida. IMC-WRAP was developed after teams comprised of representatives of the U.S. Army Corps of Engineers, the Florida Department of Environmental Protection, and IMC-Agrico field tested the SFWMD WRAP on lands proposed for phosphate mining in Hardee and DeSoto Counties, Florida. The conclusions reached during these field tests were that: (1) the SFWMD WRAP can be an effective tool to facilitate the regulatory evaluation of functional assessment for phosphate mining applications and mitigation sites; and (2) the usefulness of the SFWMD WRAP for evaluating phosphate-related sites can be improved by focusing the scoring matrix and related instructions upon the conditions found on unmined and reclaimed lands in central Florida instead of the broader set of development and mitigation scenarios found across the entire SFWMD. This manual is the result of a joint agency / IMC-Agrico effort to produce such a customized IMC-WRAP.

It is important for users of this IMC-WRAP manual to recognize that much of the following text is a verbatim reproduction of the SFWMD Technical Publication REG-001 and that wetland evaluators should first fully comprehend REG-001 before attempting to utilize IMC-WRAP. It is also important to credit the efforts of the SFWMD WRAP development workgroup and the authors of SFWMD Technical Publication REG-001 because their work product forms the basis for IMC-WRAP as well.

All parts of the SFWMD WRAP that have been modified are shown in italics.

IMC-AGRICO WETLAND RAPID ASSESSMENT PROCEDURE (IMC-WRAP)

FIELD MANUAL

1.0 INTRODUCTION

United States Army Corp of Engineer's (USACOE) representatives responsible for reviewing IMC-Agrico's applications for Section 404 Dredge & Fill (D&F) approvals have concluded that the Wetland Rapid Assessment Procedure (WRAP) developed by the SFWMD in 1997 is the best methodology available for conducting functional assessments of the wetlands present on the Ona and Pine Level tracts. During a week long field test of WRAP at Ona, Pine Level, and other IMC-Agrico wetland mitigation sites, USACOE representatives concluded that the SFWMD WRAP is an effective wetland functional assessment tool, but that the scoring procedure should be customized to improve its precision, accuracy, and, therefore, usefulness during the upcoming project permitting process.

This IMC-WRAP field manual is a reproduction of the SFWMD WRAP manual (SFWMD Technical Publication REG-001), edited to incorporate the two key changes made following the August 1998 USACOE field trials held at IMC-Agrico. Specifically, the water quality input and treatment (WQIT) variable scoring procedure (Sections 2.2.6.1 and 2.2.6.2 of SFWMD Publication REG-001) has been rewritten to reflect specific land use related pollutant loading rates for the specific FLUCFCS classifications that exist prior to mining and following reclamation in lieu of the more general land use categories applied by SFWMD in WRAP. Also, water quality treatment is addressed differently in the IMC-WRAP than the SFWMD WRAP.

The remaining SFWMD WRAP variables have not been changed, meaning that Sections 2.0 through 2.2.5.2 of the SFWMD WRAP manual remain essentially the same in the IMC-WRAP. However, throughout these sections, the IMC-WRAP manual incorporates additional guidance, explanatory notes, and evaluation considerations specific to the central Florida phosphate region or to reclaimed phosphate land characteristics. Wherever such comments appear or other modification were made, the sentence is in italicized font to indicate to the user that these notations are what distinguish the IMC-WRAP from the SFWMD WRAP.

The user is cautioned that the IMC-WRAP may not be the most appropriate tool for performing functional assessments of wetlands in areas outside the central Florida phosphate regional setting and for purposes other than phosphate mine permitting.

2.0 METHODOLOGY

The *SFWMD* WRAP incorporates concepts from the U.S. Fish and Wildlife Service's "Habitat Evaluation Procedures" (HEP, 1980) and the South Florida Water Management District's "Save Our Rivers Project Evaluation Matrix" (SOR, 1992). *The IMC-WRAP likewise incorporates these concepts.*

Ecological communities (i.e., pine flatwoods, wet prairie, cypress dome, etc.) and their associated attributes provide food, cover and breeding sites for a variety of flora and fauna. The holistic concept of HEP is used to evaluate entire systems-both upland and wetland - and their interactive associations. HEP is based on the assumption that the value of a habitat can be evaluated at the species level by using a set of measurable variables that are important for a particular species. The use of HEP is restricted by the number of species models that have been developed and those species chosen for evaluation.

The SOR matrix was developed as a method of evaluating habitats to prioritize the allocation of taxpayer dollars toward acquisition, restoration and management of sensitive lands. The matrix is used to evaluate sites using variables such as water management value, water supply potential, site manageability, habitat and species diversity, connectiveness, rare and endangered species, site vulnerability and human use.

The U.S. Fish and Wildlife Services "Habitat Suitability Index" was utilized in determining specific habitat requirements for the fauna of Florida. This information has been included in Appendix A (Species Habitat Requirement Table) as a resource for evaluating the wildlife utilization variable of the *SFWMD* WRAP; *Appendix A also applies to the IMC-WRAP*. In addition, community profiles for sites to be evaluated using the *SFWMD* WRAP are described in Appendix B. Common freshwater fishes and aquatic insect taxa associated with the specific habitats are found in Appendices C and E respectively. *Appendices A, B, C and E of the SFWMD WRAP appendices have been revised to be applicable to the IMC-WRAP. Appendix D was determined t o be applicable in its original form.*

IMC-WRAP variables include the following:

- Wildlife Utilization
- Wetland Overstory/Shrub Canopy of Desirable Species
- Wetland Vegetative Ground Cover of Desirable Species
- Adjacent Upland/Wetland Buffer
- Field Indicators of Wetland Hydrology
- Water Quality Input

2.1 METHODOLOGY FOR USING IMC-WRAP - OFFICE EVALUATION

The *IMC-WRAP* evaluator completes the following steps before leaving the office:

1. Identify the project site. Acquire an aerial map for field use and delineation of the project boundaries.
2. Identify land uses adjacent to the project site *using the 1985 FLUCFCS codes listed in the Glossary.*
    1. Identify developmental encroachment and type.
    2. Identify adjacent natural areas and plant communities using aerial photography.
    3. Identify roads, canals, and other features (i.e., wellfields, etc.) potentially isolating or impacting the site.
    4. Identify any water quality pretreatment systems.
3. Identify wetland areas within the project site.
    1. Label wetland areas for future *IMC-WRAP* scoring.
    2. Utilize soil maps to verify or identify depressional map units that may not be readily apparent from aerial maps.
    3. Identify wetland types (i.e., cypress domes, wet prairie, etc.) if possible. This may need to be done at the time of the site visit.
    4. *Identify type and extent of wetland buffer(s); identify if buffer is a component of a wildlife corridor (FDEP IHN, State Greenways Plans, etc.).*
    5. Identify access points to wetland areas.
    6. Identify canals and ditches adjacent to the wetland areas.
    7. Set up potential transects through wetland ecotypes. Transects would be warranted if a particular wetland exhibited a number of vegetative community types. The transects could then be used for future monitoring events.
    8. Identify any wildlife studies that have been conducted on the site or on adjacent areas.

In addition, the evaluator should review on-site hydrology, site management, maintenance plans, seasonal variability, droughts, fire and excessive rainfall and any other pertinent information.

FIELD EVALUATION

1. Visually inspect 100% of wetland signatures as determined by color infrared aerial photography.

2. Field inspect the perimeter of the wetland and conduct pedestrian transects, as necessary, to adequately evaluate each of the six assessment variables.

3 Mark the locations of all field pedestrian transects in red on the 1"=200' aerial photograph. Also mark on the aerial photograph points where notations of exceptional importance on the FDEP field data sheets were observed.

~~1. Walk a minimum of 50% of the wetland perimeter.~~
2. Visually inspect 100% of the wetland perimeter.
    1. Look for signs of wildlife utilization (tracks, scats, etc.) including direct observations.
    2. Identify plant community composition (visual estimate) using predetermined transect (if necessary).
        1. Conduct a visual estimate of the plant species coverage and composition (including exotic and nuisance plants) for the wetland and adjacent areas.
        2. Note any shifts in plant communities such as encroachment of upland or transitional plant species into the wetland.
    a. Identify any hydrologic indicators present (see Glossary for list).
3. Document field observations on field data sheet (Section 2.3.1) to establish baseline information for future reference.

IMC-WRAP SCORE

Score each wetland for the six variables using the guidelines presented below:

2.2 METHODOLOGY FOR SCORING AND ASSESSING HABITAT VARIABLES

Methodology for the Habitat Assessment Variable, is a series of discussions - one for each IMC-WRAP assessment variable. Following each description is a matrix containing a set of calibration descriptions and corresponding score points. A score of 3 is considered the best a system can function and 0 is for a system that is severely impacted and is exhibiting negligible attributes.

Each system must be evaluated on its own attributes and is not to be compared to a different type of system (i.e., wet prairie vs. marsh vs. cypress dome). An evaluator also has the option to score each parameter in half (0.5) increments. This provides the flexibility to score a variable that is not accurately described or fitted by the calibration description. Half increments are utilized on the point scale from 0.5 through 2.5.

If any variable does not apply to the habitat being rated, then the designation "NA" (not applicable) can be applied. When the designation "NA" is used for a specific variable it is omitted from the final calculations used to rate the habitat.

Each applicable variable is scored: the scores are totaled ($\sum V$) and then $\sum V$ is divided by the *total of the Sum of maximum possible scores for the rated variables ($\sum Vmax$)*. The final rating score for "Habitat Assessment Variables" will be expressed numerically with a number between 0 and 1. The final rating score can be expressed mathematically as follows:

$$\text{IMC-WRAP Score} = \frac{\text{Sum of the scores for the rated variables (V)}}{\text{Sum of maximum possible scores for the rated variables (Vmax)}}$$

Also expressed as: =

$$\frac{\sum V}{\sum Vmax}$$

2.2.1.1 WILDLIFE UTILIZATION

Introduction

Wetlands provide many species of wildlife with basic life sustaining needs such as water, food (i.e., macroinvertebrates and other wetland dependent species including plants) and nesting and roosting areas. While some animal species prefer uplands for nesting and rearing of young, their primary food sources are found within wetland systems. Water dependent species such as fish, some amphibians and birds have specific requirements with regard to duration and magnitude of hydrologic inundation in order to complete their life cycles. Not all wetland systems (e.g., hydric pines) provide habitat for extended hydroperiod dependent species.

It is important for the evaluator to understand the basic habitat requirements of fauna *that are or may be present on IMC-Agrico property* to know which species or signs might be observed during site visits. Appendix A lists the habitat requirements for wildlife species *that are or may be present on IMC-Agrico property*. Included are food sources, protective cover, reproductive needs and habitat size. Appendices B (Habitat Community Profiles), C (Common Freshwater Fishes of Southern Florida), and D (Common Aquatic Insect Taxa) list additional wildlife species. In addition to these references, the evaluator should use *the results of the Ona and Pine Level* wildlife stud*ies described in Section 2 of the Application Information Document* with regards to the sites or adjacent areas.

Though direct observation of wildlife utilization is ideal, it is not always possible due to the time constraints of the regulatory review process and the secrecy, mobility, habits and seasonality of many species of wildlife. The evaluator must rely on the presence of signs, including scat, tracks, rubs, and nests etc. In some instances an evaluator may have to assume that if habitat needs for a particular species are present then this species probably does frequent the site.

It is recommended that the evaluator use a D-frame dip net to determine if macroinvertebrates are present. Several sweeps through the wetland vegetation, in combination with direct observations of surface dwelling species, should provide an indication of the lower trophic levels. The presence and diversity of macroinvertebrates are quite variable depending on environmental factors such as temperature, pH, predation, and seasonality. During the dry season, the evaluator should look for available signs such as crayfish burrows and remnant exoskeletons of crayfish, dragonflies and apple snail shells. If those signs are not present, the reviewer must utilize the presence of wetland plant species as the primary indicator of on-site hydrology, influencing potential macroinvertebrate populations.

In this procedure, rabbits and rodents are considered small mammals; fox, opossum and raccoon are medium-sized mammals; and bobcat, otter, bear and panther are large mammals. It is recognized that although some species (e.g., raccoon) have adapted well to urban

encroachment, they also remain an intricate part of natural communities. Exotic animal species such as feral hogs are considered disruptive to natural systems, but that is not addressed in this procedure.

In order for a score of 3 to be achieved for a wetland site, the system must provide habitat for all levels of the food chain associated with that particular system.

2.2.1.2 WILDLIFE UTILIZATION MATRIX

Objective

The wildlife utilization variable is a measure of observations and signs (i.e., scat, tracks, etc.) of wildlife, primarily wetland dependent species. In addition, potential wildlife use through the presence of wildlife food sources, nesting areas, roosting areas, den trees and protective cover is also considered.

	Score
EXISTING WETLAND EXHIBITS NO EVIDENCE OF WILDLIFE • Existing wetland is heavily impacted. • No evidence of wildlife utilization. • Little or no habitat for native wetland wildlife species.	0
EXISTING WETLAND EXHIBITS MINIMAL EVIDENCE OF WILDLIFE UTILIZATION • Minimal evidence of wildlife utilization. • Little habitat for birds, small mammals and reptiles. • Sparse or limited adjacent upland food sources. • Site may be located in *active mining areas* with frequent human disturbances.	1
EXISTING WETLAND EXHIBITS MODERATE EVIDENCE OF WILDLIFE UTILIZATION • Evidence of wetland utilization by small or medium-sized mammals and reptiles (observations, tracks, scat). • Evidence of aquatic macroinvertebrates, amphibians and/or forage fishes. • Adequate adjacent upland food sources. • Minimal evidence of human disturbance. • Adequate protective cover for wildlife.	2
EXISTING WETLAND EXHIBITS STRONG EVIDENCE OF WILDLIFE UTILIZATION • Strong evidence of wildlife utilization including large mammals and/or reptiles. • Abundant aquatic macroinvertebrates, amphibians and/or forage fishes. • Abundant upland food sources. • Negligible evidence of human disturbance.	3

- Abundant cover and habitat for wildlife within the wetland or adjacent upland.

2.2.2.1 WETLAND OVERSTORY/SHRUB CANOPY OF DESIRABLE SPECIES

Introduction

The wetland overstory/shrub canopy variable is a measure of the presence, health and appropriateness of wetland shrub and overstory canopy. Canopy is defined as the plant stratum composed of all woody plants and palms with a trunk four inches or greater in diameter at breast height (4.5'), except vines (Department of Environmental Protection, 1994). Subcanopy (which includes shrubs) is that plant stratum composed of all woody plants and palms with a trunk or main stem diameter at breast height (4.5') between one and four inches, except vines (Department of Environmental Protection, 1994). However, *the* IMC-WRAP does include species of vines that may impact the overall health of the overstory/shrub canopy (air potato, old world climbing fern, grapevine, etc.).

Most of these wetland plant species have adapted to a restricted range of hydrologic regimes (South Florida Water Management District, 1995). Wetland overstory/shrub canopy provides many benefits to wildlife species such as cover, food, nesting and roosting areas. Wetlands can vary dramatically in the composition and density of overstory/shrub canopy species (Appendix B). This variable should be used when there is significant overstory/shrub canopy (i.e., the coverage of canopy/shrub species should exceed twenty percent of the overall wetland acreage). The variable can also be used when there is a potential (i.e., immature) canopy present, for a forested wetland that has been clear cut (silviculture), *or on phosphate mined lands that have been reclaimed with wetland forest species.*

IMC-WRAP categorizes the overstory/shrub canopy species into few, moderate and abundant trees present. Using these categories the reviewer evaluates the areal coverage and density of the overstory/shrub canopy for a particular wetland.

Certain wetland types characterized as deep-water marsh and wet prairie systems may exhibit limited or no canopy or shrub species (Myers, 1990, and Soil Conservation Service, 1987). In such situations, the variable would be designated as “NA” (not applicable) and omitted from the final calculations.

The overall condition of an overstory/shrub canopy can be evaluated by observing indicators such as the presence of a large percentage of dead or dying trees or shrubs, soil subsidence, little or no seedling regeneration and the presence of an inappropriate understory plant species. Although short-term environmental factors such as flooding, drought and fire (Beever, unpublished) can temporarily impact the health of canopy, human activities such as flooding (i.e., stacking water in retention systems) or draining systems via ground water withdrawal and conveyance canals can permanently damage these systems.

Exotic and nuisance (E&N) and/or undesirable plant species *can* become a serious problem in Florida, outcompeting and replacing native plant communities. Wetlands containing

E&N plant species are impacted in various ways depending on the type of wetland and the degree to which it is infested. There are approximately 200 species of exotic plants currently listed by the Florida's Exotic Pest Council's *1995 List of Florida's Most Invasive Species*. IMC-WRAP has identified *the E&N* species that most commonly occur *on IMC-Agrico property and has categorized these species as undesirable, nuisance, and/or exotic*. The species are listed in Appendix E. Many of the listed species can be found invading Florida wetlands. The predominant E&N species *found in wetlands on IMC-Agrico property are: primrose willow, cattail, water primrose, torpedo grass, dog fennel, sesbanias, southern willow, and climbing hempvine.*

2.2.2.2 WETLAND OVERSTORY/SHRUB CANOPY OF DESIRABLE SPECIES MATRIX

Objective

The wetland overstory/shrub canopy variable is a measure of the health and appropriateness of the wetland shrub and overstory canopy. The functional assessment of the canopy strata is objectively evaluated based on food resources, cover, nesting potential, and appropriateness of the vegetative community. The canopy stratum is evaluated based on the habitat type. This variable may not be applicable to freshwater marsh and wet prairie habitats where overstory/shrub canopy is typically not present (less than 20%). By definition, undesirable plant species include exotic and nuisance plant species.

Score

NO DESIRABLE WETLAND OVERSTORY/SHRUB CANOPY TREES PRESENT 0

- No desirable wetland trees and shrub species.
- Negligible or little habitat support (i.e., roosting, nesting and foraging) from seedling trees (if present).
- Site subject to recent clear cutting with little evidence of native canopy plant regeneration.
- Greater than 75% undesirable plant species (E&N species).

MINIMAL DESIRABLE WETLAND OVERSTORY/SHRUB CANOPY TREES PRESENT 1

- Large amounts (approx. 50%) of undesirable tree and shrub species.
- Wetland overstory/shrub canopy immature but some potential for habitat support.
- Minimal signs of natural recruitment of native canopy and shrub seedlings.
- Snags, if many present, may be an indication of hydrology problems or environmental impacts.
- Disease or insect damage in live canopy trees.

MODERATE AMOUNT OF DESIRABLE WETLAND OVERSTORY/SHRUB CANOPY TREES PRESENT 2

- Few (less than 25%) undesirable canopy trees and shrubs.
- Wetland overstory/shrub canopy is providing habitat support.
- Some evidence of natural recruitment of native canopy and shrub seedlings.
- Healthy live canopy trees with minimal evidence of disease or insect damage.

ABUNDANT AMOUNT OF DESIRABLE WETLAND OVERSTORY/SHRUB CANOPY TREES PRESENT 3

- No exotic and less than 10% invasive canopy and shrub species present.
- Good habitat support provided by wetland overstory and shrub canopy.
- Strong evidence of natural recruitment of native canopy and shrub seedlings.
- *Some* snags or den trees.
- Healthy live canopy trees with minimal evidence of disease or insect damage.

2.2.3.1 WETLAND VEGETATIVE GROUND COVER OF DESIRABLE SPECIES

Introduction

The ground cover variable is a measure of the presence, condition and appropriateness of the wetland ground cover. Ground cover will be defined as the plant stratum composed of all plants not found in the canopy or subcanopy, including vines. Ground cover vegetation can provide a refuge for macroinvertebrates, fish fry, reptiles, amphibians, small mammals and also can provide a food source for small mammals, waterfowl and reptiles.

Ground cover vegetation can be classified into herbaceous, graminoid, non-graminoid and woody species. Ground cover can also be characterized according to growth form such as emergent, floating-leaf, submersed and free-floating surface. Most wetland species have adapted to a restricted range of hydrologic regimes (South Florida Water Management District 1995). Species composition of ground cover varies among ecosystems although many species overlay (Appendix B).

The health and abundance of wetland ground cover (particularly herbaceous) can be significantly affected by extremes in wetland hydrology. Deep water conditions created by improper wetland control elevations or natural variability can drown wetland plant species. Conversely, drawdown of wetlands (due to well fields and adjacent canals) and natural variability can reduce the presence of many wetland species and allow for the encroachment of more upland/transitional species. The health of the vegetation can also be evaluated in terms of plant robustness. If the plants are chlorotic or spindly (provided they aren't just planted), it may be a sign of nutrient deficiency, improper soils or hydroperiod response.

Human activities (including hydrologic impacts and extensive nutrient inputs) can promote significant changes in wetland ground cover. Mowing of herbaceous and graminoid wetlands for aesthetics can interfere with seed production of certain plants. Grazing by cattle can influence the species composition of some wetlands due to the introduction of nuisance species of plants (i.e., torpedo grass and other invasive grasses are tolerant of higher nutrient loads). In addition, cattle grazing and off-road vehicle traffic in wetlands create soil disturbance

and compaction, as well as the destruction of native vegetation.

As previously noted, exotic and nuisance plant species *can* become a serious problem in Florida by outcompeting and replacing native plant communities. Exotic and nuisance plant species such as torpedo grass (*Panicum repens*), primrose willows (*Ludwigia species*), and cattail (*Typha species*) can be extremely invasive and disruptive to the ground cover of wetland systems. E&N plant species are to be considered when evaluating this variable.

2.2.3.2 WETLAND VEGETATIVE GROUND COVER OF DESIRABLE SPECIES MATRIX

Objective

The vegetative ground cover variable is a measure of the presence, abundance, appropriateness and condition of vegetative ground cover within the wetland. By definition, undesirable plant species include exotic and nuisance plant species.

Score

NO DESIRABLE VEGETATIVE GROUND COVER IS PRESENT 0

- Ground cover is greater than 75% undesirable vegetation.
- Vegetative ground cover is intensively maintained, managed or impacted.
- Site a freshly mulched created mitigation area with no evidence of seed germination.

MINIMAL DESIRABLE VEGETATIVE GROUND COVER IS PRESENT 1

- Ground cover exhibits large amounts (approx. 50%) undesirable vegetation.
- Ground cover routinely managed for either aesthetics or agricultural production.
- Site a newly planted mitigation area with low plant biomass density.
- Site newly mulched with signs of seed germination.

MODERATE AMOUNT OF DESIRABLE VEGETATIVE GROUND COVER IS PRESENT 2

- Few undesirable ground cover plant species are present (less than 25%).
- Ground cover slightly impacted (human induced effects).
- Mulched or planted areas established with desirable native plant species.

ABUNDANT DESIRABLE VEGETATIVE GROUND COVER IS PRESENT 3

- Less than 10% nuisance and inappropriate plant species with no exotic plant species.
- Minimal or no disturbances to ground cover.
- Area subjected to either managed or natural periodic burns for enhancement of ground cover.

2.2.4.1 ADJACENT UPLAND/WETLAND BUFFER

Introduction

The adjacent upland/wetland buffer variable is a measure of the adjacent habitat support for the subject wetland. This variable is evaluated based on the adjacent buffer size and the ecological attributes (i.e., sediment removal, nutrient uptake, cover, food source, and roosting areas) the buffer area is providing for the wetland system that is being assessed.

Wetland systems are subjected to disturbances that originate in adjacent upland areas. These disturbances can impact biological, chemical and physical attributes of wetlands (Castelle, et al, 1994). Buffers are vegetated areas located between the jurisdictional wetland line and adjacent areas subject to human disturbance. Adjacent wetlands also serve as wetland buffers. Buffers may consist of areas that are undisturbed native vegetation, areas wholly or partially cleared and revegetated, or areas with varying degrees of exotic, nuisance or undesirable *(e.g., pasture grasses)* vegetation.

The criteria for determining adequate buffer sizes should be partly based on the quality of the wetland and the intensity of the adjacent land use (Castelle, et al, 1992). Smaller buffers are more acceptable when the adjacent land use is low intensity. Larger buffers are necessary when the adjacent land use intensity is high and the quality of the buffer is low. Buffers provide benefits to wetlands through sediment control (Shisler, et al, 1987), removal of excess nutrients and metals from runoff by both physical filtration and plant uptake (Madison, et al, 1992), and maintenance of habitat diversity for animal species that require the adjacent upland buffer to meet specific habitat needs (Naiman, et al, 1988).

Buffers also form a transitional zone between the wetland and the adjacent development. The edge effect theory proposes that the numbers of plant and animal species increase at the edge, due to overlay of adjacent habitats and the creation of unique edge-habitat niches (Castelle, et al, 1994). Finally, buffers can act to reduce direct human impact by reducing access to the wetland and blocking noise and light pollution.

Castelle, et al, (1994) state that buffers less than 15-30 feet provide little protection for aquatic resources. Buffers should be a minimum of 45-90 feet under most conditions. The lower range (45 feet) is necessary for maintenance of physical and chemical protection, while the upper range (90 feet) is a minimum for the protection of biological components. Habitat Suitability Index models have demonstrated the need for buffers between 10 and 350 feet depending on the resource needs of the particular species.

Buffer quality is also very important. A good buffer might contain a mixture of native tree, shrub and ground cover plant species. This would provide a visual and sound barrier for the wetland as well as a food source, cover and nesting habitat for wildlife species. In addition, the ground cover plant species would act as a filtration system for incoming surface water. An example of a low quality buffer would be a ring of dense Brazilian pepper around the wetland. The dense growth of the pepper allows little wildlife utilization. In addition, little or no ground cover can grow in the dense shade.

Large buffers (greater than 300 feet) consisting primarily of pasture grasses may provide

spatial protection and some sediment control for wetlands. However, these types of buffers provide less benefit as cover, food source and roosting areas than a good quality buffer.

This procedure considers high volume traffic roads or highways as a severance to existing buffers. Low volume traffic roads (i.e., dirt maintenance or fire break roads) are considered as a continuation to the existing buffer.

2.2.4.2 ADJACENT UPLAND/WETLAND BUFFER MATRIX

Objective

The adjacent upland/wetland buffer variable is a measure of the area adjacent to the subject wetland and the landscape setting of the wetland. This variable is evaluated based on the adjacent buffer size and the ecological attributes (i.e., cover, food source and roosting areas for wildlife) that this area is providing in association with the wetland that is being assessed.

	Score
NO ADJACENT UPLAND/WETLAND BUFFER • Buffer non-existent	0
ADJACENT UPLAND/WETLAND BUFFER AVERAGES 30 FEET OR LESS, CONTAINING DESIRABLE PLANT SPECIES • Less than 30 feet average width. • Mostly desirable plant species which provide cover, food source, and roosting areas for wildlife. • Not connected to *designated* wildlife corridors *(e.g., FDEP IHN)*. • Greater than 300 feet but dominated (greater than 75%) by invasive exotic or nuisance plant species.	1
ADJACENT UPLAND/WETLAND BUFFER AVERAGES GREATER THAN 30 FEET BUT LESS THAN 300 FEET, CONTAINING PREDOMINATELY DESIRABLE PLANT SPECIES • Greater than 30 feet but less than 300 feet average width. • Contains desirable plant species which provide cover, food, and roosting areas for wildlife. • Portions connected with contiguous offsite wetland systems or, *designated* wildlife corridors. • Greater than 300 feet but dominated (greater than 75%) by undesirable *but* noninvasive plant species (e.g., pasture grasses).	2
ADJACENT UPLAND/WETLAND BUFFER AVERAGES GREATER THAN 300 FEET CONTAINING PREDOMINANTLY DESIRABLE PLANT SPECIES • Greater than 300 feet wide average width. • Contains predominantly desirable plant species (less than 10% nuisance, and no	3

exotic species) for cover, food, and roosting areas for wildlife.

- Connected to *designated* wildlife corridor or contiguous with offsite wetland system or areas that are large enough to support habitat for large mammals or reptiles.

2.2.5.1 FIELD INDICATORS OF WETLAND HYDROLOGY

Introduction

Wetland hydrology can be a difficult variable to evaluate given the limited time frames associated with the regulatory process. Several field indicators enable an evaluator to make inferences with regard to wetland hydrology. The duration and magnitude of inundation within a wetland system can be estimated based on plant morphological responses, plant community structure and soil morphology.

Plant Morphological Responses - Several wetland plant species have developed morphological adaptions that enable them to survive extended periods of inundation. Many wetland tree and shrub species develop adventitious roots as a response to the duration of inundation. Extended periods of inundation promote the development of these secondary roots along the basal stem of the plant. Adventitious roots are formed when the primary root stock is inundated to the extent that anaerobic conditions severely reduce root oxygen and nutrient transport. In addition, recent cypress tree knee growth is an indication of extended inundation. The bark on the apex of the knee will be spread exposing light brown or tan new growth tissue.

Other indicators include small plant species that colonize on trunks of trees at the seasonal high water line. These hydrologic indicators can be used to assist in the determination of the magnitude of inundation (Hale, 1984). Lichen lines colonize down to the seasonal high water mark. Conversely, moss collars predominantly colonize up to the seasonal high water mark.

Plant Community Structure (PCS) - The plant community structure is a composition of the ground cover and the overstory/shrub canopy. The plant community structure (PCS) can be used to make inferences about hydrologic impacts resulting from an increased or a reduced hydroperiod. The evaluator uses the PCS to assess the plant species for a specific habitat. Plant community profiles associated with specific wetland habitats for use with this procedure are in Appendix B. Although this list is not inclusive, it includes plant species typically associated with a specific wetland system.

Transitional plant species such as slash pine (*Pinus elliottii*), wax myrtle (*Myrica cerifera*) and saltbush (*Baccharis halimifolia*) encroaching into the wetland can be cautiously used as evidence of recent decreases in the hydroperiod (Rochow, 1994, and Mortellaro, et al, 1995). Evaluation of these transitional tree and shrub species allows an observer to make some inference about the wetland hydroperiod over the last 1 - 3 years. When evaluating the ground cover plant community, the evaluator should remember that transitional changes within the plant

community can occur within one year (Thibodeau and Nickerson, 1985). Care must be taken to distinguish effects of recent drought from more permanent impacts of hydrology.

Conversely, some wetland systems can be impacted by an increased hydroperiod. For example, an increased hydroperiod for a wet prairie will result in an extensive die-off of St. Johns wort. This particular plant species is then replaced with deeper marsh plants such as maidencane (*Panicum hemitomon*), water lilies (*Nymphaea odorata*) and cattails. In addition, if forested wetland systems are maintaining a proper hydroperiod, then seedling regeneration will be occurring either in openings within the canopy or on the periphery of the systems.

Before making accurate inferences about a reduced or increased hydroperiod, the evaluator should determine that the natural variability (e.g., extended droughts, excessive rainfalls, fires, etc.) is not causing the observed plant community response. Having knowledge of the average annual rainfall for the last 3 - 5 years will assist an evaluator with regard to this variable.

Soil Morphology - Soil morphology is used to evaluate soil development and characteristics. A reduced hydroperiod has a direct impact on organic soil development and can result in soil subsidence due to oxidation (Synder and Davidson, 1994). When significant oxidation occurs there may be tree falls, excessive tree leanings, exposed roots at trunk bases and gaps beneath cypress knees.

Alteration of Wetland Hydrology - Human induced impacts that can alter the hydrology of wetland systems include roads, drainage canals, levees, well fields and changes to the drainage basin. These alterations typically manifest themselves in a noticeable shift in the wetland vegetative community. Roads can interrupt historical sheetflow patterns and decrease the amount of contributing basin to a wetland system or can block the natural flow and over-inundate the system. Drainage canals and well fields are designed to move volumes of water from one area to another, whether it is for flood control or consumption. Both systems have hydrological cones of influence. The permeability of soils and the underlying geology in the vicinity of the wetland will determine the amount of drawdown these activities will cause in a wetland.

Changes to the contributing drainage basin can include increasing the amount of impervious surface (i.e, roofs, roads, parking lots, etc.) which in turn can increase the amount of water entering the wetland. This increase in hydrological input is sometimes accompanied by large decreases in the delivery time to the system which may result in wide fluctuations in water level thus affecting the survivorship or overall health of the plant species. Conversely, project construction can decrease the size of the contributing basin, thus decreasing hydrological inputs.

Wetland systems in agricultural land use settings are sometimes preserved within retention areas. Adverse impacts can occur to these wetlands through the stacking of water (holding water levels above control elevation) or pumping too much water into the system. Both of these activities can drown or shift the species composition of the wetland.

2.2.5.2 FIELD INDICATORS OF WETLAND HYDROLOGY MATRIX

Objective

This variable is a measure of the hydrologic regime based on observed field indicators for the subject wetland including hydroperiod duration and magnitude. Wetland hydrology is generally interpreted using vegetative indicators. In addition, hydrologic indicators such as lichen lines, algal mats, adventitious roots and basal scarring are also utilized. Signs of altered hydrology may include encroachment of upland and transitional plant species into the wetland.

	Score
HYDROLOGICAL REGIME HAS BECOME SEVERELY ALTERED WITH STRONG EVIDENCE OF SUCCESSION TO TRANSITIONAL/UPLAND OR OPEN WATER PLANT COMMUNITY	0

- Wetland hydrology severely altered.
- Hydroperiod inadequate to support wetland plant species for the particular community type.
- Strong evidence that upland plants are encroaching into the historical wetland area as a result of a decreased hydroperiod.
- Die-off of wetland plant species as a result of an increased hydroperiod.
- In sites with an organic soil substrate, there is substantial soil subsidence.

HYDROLOGIC REGIME INADEQUATE TO MAINTAIN A VIABLE WETLAND SYSTEM	1

- Site hydroperiod inadequate to maintain the system that is being created, enhanced or preserved.
- Succession of wetland plant species into transitional/upland plant species. Appropriate vegetation stressed or dying from too much or too little water.
- In sites with an organic soil substrate, there is evidence of soil subsidence.

HYDROLOGIC REGIME ADEQUATE TO MAINTAIN A VIABLE WETLAND SYSTEM. EXTERNAL FEATURES MAY AFFECT WETLAND HYDROLOGY	2

- Wetland hydroperiod adequate, although conditions possibly interfering with or influencing the hydroperiod of site (i.e., canals, ditches, swales, berms, reduced drainage area, culverts, pumps, control elevation and well fields) present.
- Plants healthy, and exhibit no stress from too little water or too much water.
- In sites with an organic soil substrate, there is little evidence of soil subsidence.

HYDROLOGIC REGIME ADEQUATE TO MAINTAIN A VIABLE WETLAND SYSTEM	3

- Plants healthy with no stress resulting from an improper hydroperiod.
- Wetland exhibits a natural hydroperiod.
- Wetland not adjacent to canals, ditches, swales, berms, well fields or other

negative impacts to the wetland within the landscape setting.
- In sites with an organic soil substrate, there is no sign of soil subsidence.

2.2.6.1 WATER QUALITY INPUT

Introduction

The SFWMD WRAP was developed to be utilized in nearly all wetlands within the District, including wetlands that receive storm water runoff from single and multi-family residential developments; low, medium, and high intensity commercial uses; golf courses; and a variety of intensive agricultural land uses. The SFWMD WRAP notes that pollutant loading rates from storm water runoff from open space/natural areas is much lower than from commercial and industrial developments and residential areas.

Because land uses on phosphate reserve property and reclaimed minesites fall into a much narrower range than the land uses that the SFWMD WRAP must address, together with the fact that storm water treatment systems are rarely found on phosphate reserve property, the IMC-WRAP water quality input variable focuses upon the land use scenarios found on unmined reserve lands and reclaimed lands and excludes treatment as an equally weighted variable. In addition, a "modifier" has been added to reflect that fact that differing levels of human influence can change the storm water pollutant loading rates from different parcels with the same FLUCFCS level III vegetation classification. The following paragraphs describe this approach.

Utilizing the same concept that SFWMD applied in developing its WRAP water quality input variable, the IMC-WRAP water quality input establishes a maximum adjacent land use base score of 2.5 for upland and wetland natural systems and a minimum adjacent land use base score of 0.5 for relatively intense land uses with corresponding pollutant loadings such as transportation corridors (e.g., highway and rail), cattle watering ponds, and intensively farmed land with significant chemical inputs (e.g., citrus and row crops). The four vegetative cover classifications found on phosphate company holdings that do not fall within either the intensive agriculture or natural systems categories discussed should be assigned base scores as follows:

FLUCFCS Code	*Description*	*Base Score*
510	*Ditch/Canal*	*1.0*
211	*Improved Pasture*	*1.5*
213	*Woodland Pasture*	*1.5*
520	*Lakes*	*2.0*

In order to recognize that given FLUCFCS codes may be used in different ways that offset water quality, the base water quality input score can be elevated or reduced by 0.5 point. Examples of where the base score should be increased include:
- *natural upland and wetland systems that have not been altered and are not being used for grazing at all; and*
- *grasslands vegetated with exotic species (e.g., bahia) that are not being used for grazing at all;*
- *groves that have been abandoned;*

- *row crop fields that have been abandoned; and*
- *cattle watering ponds that are no longer being used.*

Examples of where the base score should be reduced by 0.5 point include:

- *improved pastures or woodland pastures that are being overgrazed;*
- *groves and crop land where evidence of excessive storm water pollution (e.g., algal blooms or siltation) in the adjacent wetland documents poor management practices;*
- *timber harvesting practices in adjacent flatwoods and forested uplands and wetlands are causing excessive storm water pollutant loadings;*
- *cattle watering ponds that overflow or connect to the wetland; and*
- *wetlands that are being heavily grazed or that have been extensively ditched.*

It is important for the investigator to note that the base score assumes that an average amount of human activities are influencing storm water input to the wetland being evaluated and that the upward modifier is to be used only when there is evidence of no human impact on natural systems or use of best management practices on agricultural lands. Likewise, the downward modifier should be used only where there is evidence of excessive human impact.

There may be occasions where an agricultural or transportation land use has been developed with a state of the art storm water runoff treatment system. In these instances, a 0.5 point upward modifier should be applied, independent of whether the base score has already modified upward or downward because of the human influence factor described above.

Testing of the IMC-WRAP for water quality input by representatives of USACOE and FDEP produced better consistency in scoring among reviewers on IMC-Agrico lands than did the SFWMD WQIT variable matrix. For this reason, this alternative technique will be applied at the Ona and Pine Level tracts, as well as other tracts of lands to be mined and reclaimed lands, by IMC-Agrico.

2.2.6.2 WATER QUALITY INPUT VARIABLE MATRIX

Objective

The water quality variable of the matrix is a measure of the quality of the surface water flowing into the subject wetland from adjacent land uses. The percent and type of surrounding land uses is the consideration for the base score. The base scores for land use types are as follows:

FLUCFCS Code	*Description(1)*	*Base Score(2)*
211	*Improved pasture*	*1.5(3)*
212	*Unimproved pasture*	*2.5*
213	*Woodland pasture*	*1.5(3)*
214	*Row crops*	*0.5(3)*
221	*Citrus*	*0.5(3)*
310	*Herbaceous rangeland*	*2.5*

320	*Shrub and brushland*	*2.5*
330	*Mixed rangeland*	*2.5*
411	*Flatwoods*	*2.5*
420	*Upland forest*	*2.5*
510	*Streams, canals, and Waterways*	*1.0*
520	*Lake*	*2.0*
534	*Ponds <10 acres*	*0.5*
600	*Wetlands*	*2.5*
800	*Transportation*	*0.5(3)*

Notes:

(1) See glossary for complete FDOT FLUCFCS descriptions.

(2) Modify base score upward or downward by 0.5 point if adjacent land use is experiencing minimal or excessive human impacts (see Section 2.2.6.1 for guidance).

(3) Increase base score by 0.5 point if a storm water runoff treatment system exists on agricultural (FLUCFCS Series 200) or transportation (FLUCFCS Series 800) land uses; cannot be applied to natural systems.

2.3 DESCRIPTION OF IMC-WRAP FIELD DATA SHEETS

When assessing a wetland system using IMC-WRAP, it is important that the evaluator document site information and field observations. Two wetland field data sheets have been developed for this purpose. The following subsections explain how these sheets are to be used by the wetland evaluator.

2.3.1 FDEP QUALITATIVE WETLAND SURVEY DATA SHEET

Form 3-1 is a qualitative analytical work sheet that FDEP has requested IMC-Agrico complete for each wetland community on the Ona and Pine Level tracts. The objective is to provide basic information about each wetland community, including semi-quantitative estimates of percent cover and species dominance in each vegetative stratum, without creating the requirements to perform expensive and time consuming vegetation transects. Independent of the IMC-WRAP being implemented for the USACOE, the qualitative surveys will be used by FDEP to evaluate IMC-Agrico's ERP applications. The FDEP data sheets and qualitative surveys should also be used to document the basis for the IMC-WRAP scores that are prepared for USACOE

2.3.1.1 FDEP DATA SHEET INSTRUCTIONS

The following is a description of the information required when filling out the FDEP field data sheet for qualitative wetland surveys.

***Project Site**: Check whether the wetland being evaluated is located on the Ona or the Pine Level tract. If the data sheet is to be used for wetlands located on other tracts, the master form should be revised to reflect the correct property name.*

***Wetland Number**: Prior to leaving the office, each wetland on the project site should already be numbered using the numbering system presented in Chapter 3 of the Ona/Pine Level Application Information Document. These numbers should be verified against maps or aerial photographs.*

Investigator: The name of the individual who performed the evaluation.
***Date/Time**: The date and time when the field inspection occurs.*
***Photo Roll No.**: If photographs are taken during the inspection, indicate the roll number and exposure number(s) taken at the subject wetland.*
***Wetland Type**: Check the FLUCFCS code that applies to the subject wetland.*
***Vegetation Canopy and Subcanopy**: A qualitative visual estimate of the canopy and subcanopy in the subject wetland. Canopy and subcanopy species present should be listed and their approximate range of dominance should be estimated for both stratum. Use additional space elsewhere on the page if more than nine species of canopy and subcanopy species are identified. Total canopy cover should be estimated and recorded in the notes section.*
***Vegetation Shrub Layer**: A qualitative estimate of the percent cover and species composition within the shrub layer of the subject wetland exclusive of subcanopy species. Shrub layer species present should be listed and their approximate range of dominance should be estimated. Total shrub layer coverage should be estimated and recorded in the notes section.*
***Vegetation Ground Cover**: A qualitative estimate of the present cover and species composition within the ground cover layer of the subject wetland. Ground cover species should be listed and the approximate range of dominance should be estimated visually. Total percent cover for this stratum should be visually estimated and recorded in the notes section.*
***Vegetation Notes**: Field notes that add other descriptive factors and help to explain field ratings (e.g., presence of listed flora species,zonation patterns, high diversity, mature trees, percent canopy cover etc.).*
***Vegetation Disturbance**: Field notes that identify disturbances to the subject wetland that can be natural or man made (e.g., fire, dead or dying trees, logging, heavy cattle grazing, presence of nuisance or exotic species, or encroachment of upland species.)*
***Soils Characteristics**: Check which characteristic best describes the uppermost soil horizon.*
***Soils Depth**: Circle the depth range that best fits the depth of the uppermost soil horizon.*
***Soils Disturbances**: Note any disturbances (e.g., feral hog rooting, subsidence, excessive siltation) that have impacted the uppermost soil horizon. Ditching in and immediately adjacent to the subject wetland should also be noted.*
***Surface Water/Saturation**: Respond to the questions to the extent possible and use "NA" when not applicable or "UNK" when the answer cannot be determined. To the extent practical, consider the annual hydrologic cycle when estimating average depth of water and percent of wetland regularly inundated.*
***Stream Channel Characteristics**: When the subject wetland is associated with a watercourse (i.e., this could be a natural stream or a man-made or man-enhanced ditch/canal), provide estimates of the information requested. Consider the entire annual hydrologic cycle when estimating hydrologic conditions.*
***Ave. Depth of Water:** Estimate the average water depth of the wetland at the time of the assessment. If the depth varies substantially across the wetland, a range of depths may be entered.*
***Estimated Seasonal High Water Depth:** This parameter pertains predominantly to forested systems. Estimate the seasonal high water depth by indicators such as lichen lines, moss collars, adventitious rooting, stain lines, recorded data, etc. Indicate whether the subject wetland can best be described as a "depressional", "flow-through" or "headwater" area by answering "yes" or "no" to the questions presented.*
***Nonforested Wetland - Flooding:** Seasonal high water elevations are often more difficult to*

establish in nonforested wetlands than forested wetlands. Therefore, only the general duration of flooding (i.e., "seasonally flooded", "semi-permanently flooded" or "permanently flooded") will be determined. This can often be ascertained by vegetation, rack lines, knowledge of the area, etc. Check on the appropriate line. If the flooding frequency can only be narrowed down to two possibilities, check both lines. If it is not possible to determine at all, enter "UNK" Write N/A if the wetland is forested.

***Hydrology/Topography Disturbance/Alteration**: Use the space provided to briefly describe the disturbances/alterations to the natural hydrology observed. Include examples like ditching, culverts, berms, spoil piles, evidence of modified flow in streams, and note if their are cattle ponds dug out adjacent to a wetland or stream. Be sure to note "none" if there is no evidence of man-made alterations.*

***Wildlife Observations**: Use the space provided to make notations of any observations of wildlife utilization, including direct observations or evidence of historical usage (e.g., scat, tracks, etc.).*

***Endangered and Threatened Species**: Use the space provided to make notations of any observations of listed wildlife species utilization, including direct observations or evidence of usage (e.g., scat, tracts, etc.). Be sure to note "none" if no evidence is available.*

***Other Comments**: Identify the adjacent land uses by estimating the percent of the subject wetland perimeter adjoined by various other vegetative conditions, including wetlands. Use the FLUCFCS level III classification codes, if known. Use the space provided to document the availability and size of a wetland buffer and to document any other relevant observations.*

2.3.2 USACOE IMC-WRAP SUMMARY SHEET

Form 3-2 is a summary sheet that has been developed jointly by USACOE and IMC-Agrico for use in the field completing the IMC-WRAP. Used in conjunction with Form 3-1, the IMC-WRAP data sheet provides a condensed version of the scoring matrix for each of the six IMC-WRAP variables described in the preceding subsections. These descriptions of scoring guidance along with the definitions in the Glossary should be referenced to assist in scoring the variables.

2.3.2.1 USACOE IMC-WRAP SUMMARY SHEET INSTRUCTIONS

The following is a description of the information required when utilizing the USACOE IMC-WRAP summary sheet:

Project Site: Check whether the wetland being evaluated is located on the Ona or the Pine Level tract. If the data sheet is to be used for wetlands located on other tracts, the master form should be revised to reflect the correct property name.

Wetland Number: Prior to leaving the office, each wetland on the project site should already be numbered using the numbering system presented in Chapter 3 of the Ona/Pine Level Application Information Document. These numbers should be verified against maps or aerial photographs.

Investigator: The name of the individual(s) who performed the evaluation.

Date/Time: The date and time when the field inspection occurs.

Wetland Group ID: Enter a wetland grouping number or other code for wetlands that are in the same FLUCFCS level III classification, in the same setting and conditions. This grouping is to allow the evaluation of only one of more wetlands where the evaluation will apply equally to two or more wetlands, so as to simplify the field efforts.

Wildlife Utilization: A measure of the wildlife utilization within the subject wetland. Noted signs

and observations should be documented within the "Wildlife Observations Comments" section of Form 3-1 to support the wildlife utilization assessment.
Wetland Canopy: A measure of the overstory/shrub canopy for the subject wetland. Field observations should be documented in the "Vegetation Canopy and Subcanopy" section of Form 3-1 to substantiate the assessment of the wetland canopy variable.
Wetland Ground Cover: A measure of the wetland ground cover for the subject wetland. Field observations should be documented in the "Ground cover" section of Form 3-1 to substantiate the assessment of the wetland ground cover variable.
Habitat Support/Buffer: A measure of the habitat buffer for the subject wetland. Field observations should be documented in the "Other Noteworthy Comments" section of Form 3-1 to substantiate the assessment of the habitat support/buffer variable.
Field Hydrology: A measure of the field indicators of hydrology for the subject wetland. Field observations should be documented in the "Hydrology and Topography" section of Form 3-1 to substantiate the assessment of the field hydrology variable.
WQ Input and Treatment: A measure of the water quality input and surface water pretreatment for the subject wetland. Field observations should be documented in the "Other Noteworthy Comments" section of Form 3-1 to substantiate the assessment of the water quality variable.
IMC-WRAP Score: The overall functional score for the subject wetland. Each variable score is summed and then divided by the total possible maximum score for the variables (See Section 2.2). The final WRAP score is expressed as a number between zero and one (to two significant figures e.g. 0.xx).

GLOSSARY

Agriculture - The science or art of cultivating the soil, producing crops, or raising livestock.
Anthropogenic activities - Relating to, or resulting from the influence of human beings on nature.
Appropriate plant species - Plant species which are appropriate for a given community type (i.e., *Rhynchosphora tracyii* in a wet prairie, Nym*phaea odorata* in a deepwater marsh).
Canopy - The plant stratum composed of all woody plants and palms with a trunk four inches or greater in diameter at breast height (4.5') except vines.
Decreased hydroperiod - A decrease in the annual period of inundation, resulting in a change in the plant community composition and structure. The effect is usually an increase of transitional and upland plant species.
Desirable plant species - Native plant species that are appropriate for a specific community type and provide benefits to wildlife in the forms of food, cover, and nesting potential.
Direct impacts - Physical acts such as dredging or filling wetlands.
Design protocol - The design of a scientific experiment or treatment.
Dry detention areas - Created impoundments with a bottom elevation of at least one foot above control elevation of the area.
Duration of inundation - Period of time inundation occurs on an annual basis.
Exotic plant species - Plant species that are non-native, purposefully or accidentally introduced by humans to a geographic area. Many are invasive in nature and disrupt native plant communities.
Florida Land Use, Cover and Forms Classification System (FLUCFCS) *- Published in 1985 by the Florida Department of Transportation as Procedure no. 550-010-001-A, this methodology should*

be used by wetland evaluators to classify land uses and vegetative cover when completing the IMC-WRAP. Evaluators should carry a copy of this procedure in the field.

Freshly mulched created mitigation area - The spreading of hydric soils (with viable native seed bank present) across a graded, newly constructed mitigation area.

Grass swales - A linear depression, usually designed to capture, store, and convey storm water runoff.

Ground cover - The plant stratum composed of all plants not found in the canopy or subcanopy.

Heavily impacted - Impacted by human activities to such a degree as to reduce significantly the functionality of a system.

High intensity commercial - Land uses consisting of commercial with high levels of traffic volume. Traffic is constantly moving in and out of the area; including downtown areas, commercial office sites and regional malls.

High intensity land use - Intensive agricultural operations such as dairy farming (including feedlots), and high intensity commercial projects. These land uses are significantly disruptive to wetland systems through direct and indirect impacts.

Highways - Major road systems such as interstate highways, major arteries and thoroughfares.

Hydroperiod - Annual period of inundation.

Hydrological indicators - Indicators that may be used as evidence of inundation or saturation when evaluated with meteorological information, surrounding topography, and reliable hydrological data. Indicators include algal mats, aquatic mosses, aquatic plants, aufwuchs (microscopic attached organisms), basal scarring, drift lines, elevated lichen lines, evidence of aquatic fauna, morphological plant adaptations, secondary flow channels, sediment deposition, vegetated tussocks and water marks.

Hydrology - Water depth, flow patterns, and duration and frequency of inundation as influenced by precipitation, surface runoff and ground water.

Impervious surface - Surface which does not allow for the percolation of water (e.g. asphalt parking lots and roads, rooftops).

Improved pasture - Rangeland comprised mostly of introduced pasture grasses. The recommended stocking density for improved pasture is one cow for every five acres of rangeland.

Inappropriate plant species - Plant species which are not usually considered nuisance species, however may be indicative of other problems (i.e., improper hydrology) and may dominate a particular stratum (e.g., *Rubus* sp. in a cypress forested wetland). These plant species are not considered appropriate for a particular habitat.

Increased hydroperiod - Increase in the annual period of inundation, resulting in a change in the plant community composition and structure, and which can include an increase in the duration and magnitude of inundation.

Indirect impacts - Impacts to wetlands such as increased nutrient loading, altered hydrology, impacts to wetland buffer, development of adjacent areas or disturbances by air, light or noise pollution.

Industrial - Manufacturing, shipping and transportation operations, sewage treatment plant facilities, water supply plants and solid waste disposal.

Infiltration trench - Impoundment in which incoming runoff is temporarily stored until it gradually leaves the basin by infiltrating into the soils.

Institutional - Schools, churches, libraries, etc. Runoff concentrations are similar low intensity commercial.

Intensively maintained - Mowed, disced or similarly impacted on more than a semi-annual basis.

Invasive exotic plant species - Exotic plant species (e.g., punk tree, Australian pine, Brazilian pepper, old-world climbing fern, etc.) that are invading and disrupting native plant communities in Florida.
Landscape setting - The type of land use that surrounds a wetland (i.e., agriculture, residential, commercial/industrial, undeveloped.)
Mining - Includes mining excavation, lake construction, and site development activities, resulting in the removal or clearing of vegetation.
Moderately intensive commercial - Areas that receive moderate amounts of traffic volume for a portion of the day, such areas include small shopping centers and plazas.

Moderately intensive land use - Includes single-family residential, multi-family residential, golf courses and golf course residential communities, industrial projects, highways and agricultural activities such as pasture and row crops.
Multi-family residential - Residential land use consisting primarily of apartments, condominiums and cluster homes.
Non-invasive exotic plant species - Exotic plant species which have not yet been shown to be invasive to natural communities.
Nuisance plant species - Plant species which have the potential to dominate disturbed or created plant communities and form large vegetative colonies (e.g., cattails, spatterdock, primrose willow).
Open space/natural undeveloped area - Areas that are not developed and exhibit minimal human impact, such areas include parks and passive recreational areas.
Overstory - Vegetation stratum consisting of woody plants and palms with a trunk > 4" dbh.
Pretreatment or MSSW systems - Constructed systems designed to pretreat water (i.e., remove suspended solids and reduce nutrient concentrations) prior to discharge. Systems can range in simplicity from grass swales and dry retention to secondary treatment and polishing ponds.
Proc GLM - Procedure General Linear Model.
Recreational - Areas which have been developed for active recreational use (e.g., ballfields, soccer fields, tennis and volleyball courts, etc.). These areas typically have intensive ground maintenance programs.
Routinely maintained - Mowed or similarly impacted on an annual basis.
Row Crops - Agricultural practice of crops planted and harvested on an annual basis, excluding sugar cane (i.e., vegetable farms and plant nurseries).
ShrubLayer - Vegetation stratum consisting of vines and woody plants with a main stem diameter $\leq$ 4" dbh.
SAS - Statistical Application Software.
Secondary productivity - Macroinvertebrates, fishes and wildlife.
Single-family residential - Detached dwelling units with lot sizes less than one acre and dwelling unit densities greater than one dwelling per acre; duplexes constructed on one-third to one-half acre also included.
Subcanopy - The plant stratum composed of all woody plants and palms with a trunk or main stem diameter at breast height (4.5') between one and four inches, except vines.
Undesirable plant species - Exotic, nuisance or undesirable plant species for a given habitat.
Unimproved pasture - Comprised mostly of native rangeland. The recommended stocking density is one cow per twenty-five acres of rangeland.
Wet detention areas - Impoundments in which storm water runoff is temporarily stored until it gradually leaves through an outflow control structure. A pool of water remains after a specific

bleed-down period.

APPENDIX A
SPECIES HABITAT REQUIREMENT TABLE
(IMC-Agrico Revised)

Species	Food	Cover	Reproduction	Habitat Size
Great blue heron (*Ardea herodias)*	Water is less than 50 cm deep, fish, reptiles, and macroinvertebrates	Not a limiting factor	Trees 5-15 m. high. Riparian swamp tree islands	0.4 ha - 4.6 ha
Bullfrog *(Rana catesbeiana)*	Fish, reptiles, macroinvertebrates, amphibians	Ground cover, understory, stumps, logs, and banks	Continuous standing water	Not a limiting factor
Barred owl (*Strix varia*)	Small mammals, reptiles, fish, and macroinvertebrates	Dense forested wetlands, deciduous riparian woodlands	Trees are larger than 50 cm dbh. Nest cavity greater than 7.5 cm from ground	Greater than 10 ha
Wood duck *(Aix sponsa)*	Aquatic plants, fruits, insects, acorns, and macroinvertebrates	Downed timber, dense shrub, canopy riparian forest	50-75% cover (tree cavities, shrubs). 25-50% open water	Greater than 4 ha
Eastern cottontail (*Sylvilagus floridanus)*	Grasses, herbs, flowers (usually not a limiting factor)	Shrubby cover adjacent to field edges, savanna prairie, forbs, brambles	Grasses are less than 20 cm high	Greater than 4 ha
Alligator *(Alligator mississippiensis)*	Small mammals, large mammals, birds, reptiles, fish, and macroinvertebrates	Palustine emergent, estuarine emergent vegetation	Sloping banks, with available vegetation	Greater than 5 ha
Sandhill crane (*Grus canadensis*)	Insects, macroinvertebrates, reptiles, amphibians, roots, small mammals	Roosting site typically within large wetlands (cover typically not a limiting factor)	Large marsh complexes. Scattered marshes, bogs (isolation)	Dependent on isolated wetland
White-tailed deer *(Odocoileus virginianus)*	Seeds, fruits, twigs, acorns, shoots, buds, broadleaved herbaceous plants, grasses	Swamps, thickets, broken mixes of forest and agricultural land, forested area with limited tree canopy	See cover	Greater than or equal to 40 ha
Bobcat (*Felix rufus)*	Large, medium and small mammals, reptiles, and birds	Thickets, hollow stumps, logging debris, bottomland hardwood, mixed grassy areas	Thickets, hollow stumps, logging debris	Minimum is greater than 1 km Optimum is greater than 20 km
Large mouthed bass (*Micropterus salmoides)*	Insects, macroinvertebrates, crustaceans, fish, and amphibians	Some standing water at all times, riverine-sufficient pools of less than 6 cm per second flow. Lacusirine and lakes with greater than 25% area less than 6 m depth. Optimal cover 40-60% of	Nesting area: gravel, vegetation sand, mud, roots, cobble, 0.15-7.5 m depth	No minimum habitat size established

Species	Food	Cover	Reproduction	Habitat Size
		logs, brush, and debris, in littoral areas or pools		
Belted kingfisher *(Ceryle alcyon)*	Fish, crayfish, frogs, and insects	Roosts on single limbs about 6-7m above ground. Bare branches, wires for fishing	Shrub cover (brooding), nesting borrows in steep banks devoid of vegetation	Greater than 1.0 km of lake shore or stream
Bald eagle *(Haliaeetus leucocephalus)*	Birds, medium to small mammals, fish, reptiles and amphibians, and macroinvertebrates	Sheltered timber stands	Old-growth and second-growth timber. Mature trees, open forest structure within 162 m of a lake or fishable body of water	8 ha of water surrounded by 1.5 km strip of land
Fox squirrel (*Sciurus niger)*	Seeds, mast, buds, insects, roots, and bird eggs	Hardwood or pine flatwoods with little understory. Stands of large trees interspersed with agricultural lands, well-drained bottomlands	Leaf nests, tree cavities	2 ha
Gray squirrel *(Sciurus carolinensis)*	Mast, fruit, buds, seeds, bark, roots, fungus, and animal matter	Mature hardwood forest with dense well developed understory. Saw time trees greater than 22.8 cm in dbh, trees greater than 22.8 cm in db.	Hardwood stands greater than 60 years old, den trees, leaf nests	Greater than 0.4 ha
Redear sunfish *(Lepomis microlophus)*	Juvenile-algae microcruslaceans, adults-zooplankton, macroinvertebrates, and crustaceans	Lacusirine, palustine, slow moving riverine, vegetated shallow areas with brush, stumps and logs	Depth of water at nest varies 5 cm to 6 m. Vegetative free substrate. Sandy clay, gravel, limestone, shells and mud	No minimum size established
Bluegill *(Lepomis macrochirus)*	Zooplankton, aquatic and terrestrial insects, and plant material	Lacustrine, palustrine and slow moving riverine. Fertile waterbodies with submerged vegetation, logs, brush	Vegetated areas and unvegetated areas. Substrate-fine gravel, sand, sandy-clay, mud, limestone and shells - 1-3 in in water depth	No minimum habitat size established
Pine warbler (*Dendroica pinus)*	Insects, pine seeds, wild fruit, berries	Pure stands of seral pine trees. 35-100 years old, mature conifers	Horizontal branches in needles at end of a branch or in a clump of cones. Nests at heights greater than 8 m	Usually greater than 10 ha
Pileated woodpecker *(Dryocopus pileatus)*	Ants, beetles, wild fruit	Foraging: dense canopies with numerous snags, stumps and logs Cover: dense forests, mesic habitats	Cavity nesters. Tall snags, nests at greater than 51 m off ground	Greater than 130 ha
Eastern wild turkey *(Meleagris gallapavo)*	Grasses, acorns, seeds, fruits, lubers, bulbs, insects,	Open mature woods, mixture of forests and open lands	Nests on ground concealed by dense brush, mayfields, fence	Greater than 900 ha

Species	Food	Cover	Reproduction	Habitat Size
	amphibians, crustaceans		rows, and utility rights-of-way	

APPENDIX B
HABITAT COMMUNITY PROFILES
(IMC-Agrico Revised)

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
Cypress Swamp	Cricket frog (*Acris gryllus*)	Bald/pond cypress *(Taxodium spp.)*	Royal fern (*Osmunda regalis*)	Hydroperiod 3-12 months
	Little grass frog (*Limnaoedus ocularis*)	Coastal plain willow *(Salix caroliniana)*	Cinnamon fern (*Osmunda cinnamomea*)	Depth of inundation +2' (wet)
	*American alligator *(Alligator mississippiensis)*	Blackgum (*Nyssa sylvatica var. biflora*)	Swamp fern (*Blechnum serrulatum*)	Depth of inundation -4' (dry)
	Aquatic turtle guild	Red maple *(Acer rubum)*	Chain fern (*Woodwardia spp.)*	
	Pig frog *(Rana grylio)*	Button bush (*Cephalanthus occidentalis*)	Shield fern (*Thelypteris spp.)*	
	*Barred owl *(Strix varia)*	Myrsine *(Myrsine guianensis)*	Arrow arum (*Peltandra virginica*)	
	*Heron guild *(Ardea spp., etc.)*	Virginia willow *(Itea virginica*)	Lizard tail (*Saururus cernuus*)	
	Limpkin *(Aramus guaruana)*	Wax myrtle (*Myrica cerifera*)	Pickerel weed (*Pontederia cordata*)	
	Great horned owl *(Bubo virginianus)*	Fetterbush (*Lyonia lucida*)	Sphagnum moss (*Sphagnum spp.*)	
	Woodstork *(Mycteria americana)*			
	*Wood duck *(Aix sponsa)*			

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
	*Bobcat *(Lynx rufus)* *Deer *(Odocoileus virginianus)* River otter *(Lutra canadensis)* Raccoon *(Procyon lotor)*			
Bayhead				
	Opossum *(Didelphis virginiana)*	Sweet bay magnolia *(Magnolia virginiana)*	Cinnamon fern *(Osmunda cinnamomea)*	Wet season
	Southeastern shrew *(Sorex longirostris)*	Loblolloy bay *(Gordonia lasianthus)*	Dichanthelium *(Dichanthelium spp.)*	Saturated soil
	Short-tailed shrew *(Blarina carolinensis)*	Swamp red bay *(Persea palustris)*	Virginia chain fern *(Woodwardia virginica)*	Dry season (-) 3 ft
	Marsh rabbit (*Sylvilagus palustris)*	Red maple *(Acer rubrum)*	Netted chain fern *(Woodwardia areolata)*	
	Raccoon *(Procyon lotor)*	Sweet gum *(Liquidambar styraciflua)*	Shield ferns *(Thelypteris normalis & T. dentata)*	
	Bobcat *(Lynx rufus)*	Virginia willow *(Itea virginica)*	Sphagnum moss (*Sphagnum sp.)*	
	Warbler guild *(Various genera and species)*	Fetterbush (*Lyonia lucida)* Maleberry *(Lyonia ligustrina)*		
	Cricket frog	Dahoon holly	Nutrush	

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
	(*Acris gryllus dorsalis*)	*(Ilex cassine*)	(Scleria spp.)	
	Chorus frog *(Pseudacris nigrita)*	Red chokeberry *(Aronia arbutifolia*)		
	Diamond back rattlesnake *(Crotalis adamanteus)*	Saw palmetto *(Serenoa repens)*		
	Hawk guild *(Buteo spp.)*	Slash pine *(Pinus elliottii*)		
	Cotton rat (*Sigmodon sp.)*	Laurel oak *(Quercus laurifolia*)		
	Black racer *(Coluber constrictor*)	Gallberry *(Ilex glabra)*		
		Swamp azalea *(Rhododendron viscosum*)		
		Highbrush blueberry *(Vaccinium corymbosum)*		
Wet Flatwoods	Oak toad *(Bufo quercicus)*	Slash pine (*Pinus elliottii*)	Blue maidencane *(Amphicarpum mulhenbergianum)*	Wet season: Hydroperiod 1-4 months/yr Depth of inundation 1'-2' above the surface
	Chorus frog *(Pseudacris nigrita)*	Sabal palm (*Sabal palmetto*)	Wire grass (*Aristida spp.*)	
	Cricket frog *(Acris gryllus dorsalis)*	Dahoon holly (*Ilex cassine*)	Beak rush (*Rhynchospora spp.*)	Dry season: Depth of inundation -3' below the surface
	Black racer *(Coluber constrictor)*	Red bay *(Persea palustris)*	Maidencane (*Panicum hemitomon*)	
	Diamondback rattlesnake	Wax myrtle	Nut rush	

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
	(Crotalus adamanteus)	(*Myrica cerifera*)	(*Scleria spp.*)	
	Pygmy rattlesnake	Saw palmetto	Redroot	
	(Sistrurus milliarius)	(*Serenoa repens)*	(*Lachnanthes caroliniana*)	
	Hawk guild		Yellow eyed grass	
	(Buteo spp.)		(*Xyris spp.*)	
	Bobwhite quail		Pickerel weed	
	(Colinus virginianus)		(*Pontederia cordata*)	
	Opossum		Colic root	
	(Didelphis virginiana)		(*Aletris lutea*)	
	Cotton rat		Sundew	
	(Sigmodon spp.)		(*Drosera spp.*)	
	Raccoon		Milkwort	
	(Procyon lotor)		(*Polygala spp.)*	
	Striped skunk		St. Johns wort	
	(Mephitis mephitis)		(*Hypericum spp.*)	
	*Bobcat		Marsh pink	
	(Lynx rufus)		(*Sabatia spp.*)	
	*Deer		Hatpins	
	(Odocoileus virginianus)		(*Eriocaulon spp.*)	
	*Cottonrail rabbit			
	(Sylvilagus floridanus)			
Wet Prairie**	Leopard frog	*Slash pine	Wire grass	Duration of inundation
	(Rana sphenocephala)	*(Pinus elliottii var. densa*)	(*Aristida spp.)*	+0.7' for 2-5 months/yr
	Cricket frog	*Wax myrtle	Beak rush	
	(Acris gryllus dorsalis)	*(Myrica cerifera*)	(*Rhynchospora spp.*)	
	Black racer	Dahoon holly	Maidencane	
	(Coluber constrictor)	(*Ilex cassine*)	(*Panicum hemitomon*)	
	Aquatic turtle guild	*Groundsel bush	Blatterwort	

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
		(*Baccharis halimifolia*)	(*Utricularia spp.)*	
	Pygmy rattlesnake		St. Johns wort	
	(Sistrurus milliarius)		(*Hypericum fasciculatum*)	
	Hawk guild		Marsh pink	
			(*Sabatia spp.*)	
	Heron and egret guild		Hatpins	
			(*Eriocaulon spp.*)	
	White ibis		Sundew	
	(Eudocimus albus)		(*Drosera capillaris*)	
	Killdeer		Yellow eyed grass	
	(Charadrius vociferus)		(*Xyris spp.*)	
	Red winged blackbird		Water drop-wort	
	(Agelaius phoeniceus)		(*Oxypolis filiformis*)	
	Marsh rabbit		Queen's delight	
	(Sylvilagus palustris)		(*Stillingia aquatica*)	
	Cotton rat		Mermaid weed	
	(Sigmodon spp.)		(*Proserpinaca spp.*)	
			Giant plumegrass	
			(*Erianthus giganteus*)	
Emergent Fresh Water Marsh, Ponds and Ditches	Cricket frog	Carolina willow	Pickerel weed	Period of inundation 7-10
	(Acris gryllus)	(*Salix carolinana*)	*(Pontederia cordata)*	months/yr
	Leopard frog	Elderberry	Cattail	
	(Ranasphenocephala)	(*Sambucus canadensis*)	(*Typha spp.*)	
	*Bullfrog	Cypress	Arrowhead	
	(Rana catesbeiana)	(*Taxodium spp.)*	(*Sagittaria spp.*)	
	Aquatic turtle guild	Dahoon holly	Fire-flag	
		(Ilex cassine)	(*Thalia geniculata*)	
	Banded water snake	Blackgum	Bulrush	
	(Natrix fasciata)	(*Nyssa sylvatica var.*	*(Scirpus spp.)*	

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
		biflora)		
	Cottonmouth *(Agkistrodon piscivorus)*	Buttonbush (*Cephalanthus occidentalis*)	Maidencane (*Panicum hemitomon*)	
	*American alligator *(Alligator mississippiensis)*		Ludwigia (*Ludwigia spp.)*	
	*Heron and egret guild		St. Johns wort (*Hypericum spp.)*	
	Florida duck *(Anas fulvigula)*		Beak rush (*Rhynchospora spp.*)	
	Raccoon *(Procyon lotor)*		Sawgrass (*Cladium jamaicense*)	
			Spike rush (*Eleocharis spp.)*	
			Soft rush (*Juncus spp.*)	
			Lake rush *(Fuirena spp.)*	
			Water drop wort (*Oxypolis filiformis*)	
			Sedges (*Cyperus spp.)*	
			Smartweed (*Polygonum spp.*)	
Mixed Hardwood Swamps	Cricket frog *(Acris gryllus)*	Bald/pond cypress (*Taxodium spp.)*	Royal fern (*Osmunda regalis*)	Hydroperiod 4-11 months
	Little grass frog *(Limnaoedus ocularis)*		Cinnamon fern (*Osmunda cinnamomea*)	Depth of inundation +2.5' (wet)
	*American alligator	Blackgum	Swamp fern	Depth of inundation -5'

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
	(Alligator mississippiensis)	(*Nyssa sylvatica var. biflora*)	(*Blechnum serrulatum*)	(dry)
	Aquatic turtle guild	Red maple (*Acer rubum*)	Chain fern (*Woodwardia spp.*)	
	Eastern mud snake *(Farancia abacura)*	Button bush (*Cephalanthus occidentalis*)	Shield fern (*Thelypteris spp.)*	
	Cottonmouth *(Agkistrodon piscivorus)*	Water ash (*Fraxinus caroliniana*)	Arrow arum (*Peltandra virginica*)	
	*Barred owl *(Strix varia)*	Slash pine (*Pinus elliotti*)	Lizard tail (*Saururus cernuus*)	
	Swallow-tailed kite *(Elanoides f. forficatus)*	Wax myrtle (*Myrica cerifera*)	Pickerel weed *(Pontederia cordata*)	
	*Pileated woodpecker *(Dryocopus pileatus)*	Fetterbush (*Lyona lucida*)	Sphagnum moss (*Sphagnum spp.*)	
	Great horned owl *(Bubo virginianus)*	Virginia willow (*Itea virginica*)	Sawgrass (*Cladium jamaicense*)	
	Woodstork *(Mycteria americana)*	Carolina willow (*Salix caroliniana*)	Poison ivy (*Toxicodendron radicans*)	
	*Wood duck (*Aix sponsa)*	American elm *(Ulmus americana)*		
	*Deer *(Odocoileus virginianus)*	Swamp laurel oak *(Quercus laurifolia)*		
	River otter *(Lutra canadensis)*	Sweet bay *(Magnolia virginiana)*		
	Raccoon *(Pyocyon lotor)*	Swamp bay *(Persea palustris)*		
	Black bear *(Ursus americanus)*			

Habitat Type	Wildlife Utilization	Overstory/Shrub Spp.	Ground Cover Spp.	Hydrology
	*Bobcat *(Lynx rufus)*			

Notes:
* = See Appendix A.
* * = This term is used to describe shallow-depressional wetlands with sandy soils typically found in pine flatwoods communities. Other have used "wet prairie" to describe several different wetland communities in south Florida (e.g., Lodge, 1996).

APPENDIX C
COMMON FRESH WATER FISHES OF *CENTRAL* FLORIDA

Original list compiled by Dr. Alex Marsh, Department of Biological Science,
Florida Atlantic University, Boca Raton, Florida
(IMC-Agrico Revised)

Scientific Name	Common Name
Amia calva	Bowfin
Anguilla rostrata	American Eel
Erymizon sucetta	Lake Chubsucker
Esox niger	Chain Pickeral
Etheostoma fusiforme	Scalyhead Darter
Fundulus chrysotus	Golden Topminow
Fundulus seminolis	Seminole Killifish
Gambusia affinis	Mosquitofish
Heterandria formosa	Least Killifish
Ictalurus natalis	Yellow Bullhead
Jordanella floridae	Flagfish
Labidesthes sicculus	Brook Silverside
Lepisosteus platyrhlncus	Florida Gar
Lepomis gulosus	Warmouth
Lepomis macrochirus	Bluegill
Lepomis marginatus	Dollar Sunfish
Lepomis microlophus	Redear Sunfish
Lepomis punctatus	Spotted Sunfish
Lucania goodei	Bluefin Killifish
Micropterus salmoides	Largemouth Bass
Notemigonus crysoleucas	Golden Shiner
Noturus gyrinus	Tadpole Madtom
Poecilia latipinna	Sailfin Molly
Tilapia aurea *	Spotted Tilapia

(* Exotic Species)

APPENDIX D
COMMON AQUATIC INSECT TAXA

List compiled by Dr. Alex Marsh, Department of Biological Science,
Florida Atlantic University, Boca Raton, Florida

Order	Plecoptera	Stoneflies
Order	Ephemeroptera	Mayflies
Order	Odonata	
	Suborder Anisoptera	Dragonflies
	Suborder Zygoptera	Damselflies
Order	Hemiptera	
	Family Hebridae	Velvet water bugs
	Family Hydrometridae	Water measurers
	Family Mesoveliidae	Water treaders
	Family Gerridae	Water striders
	Family Veliidae	Broad-shouldered water striders
	Family Notonectidae	Backswimmers
	Family Pleidae	Pigmy backswimmers
	Family Naucoridae	Creeping water bugs
	Family Nepidae	Water scorpions
	Family Belostomatidae	Giant water bugs
	Family Corixidae	Water boatmen
Order	Megaloptera	
	Family Sialidae	Alderfly
	Family Corydalidae	Hellgrammite
Order	Neuroptera	Spongilla flies
Order	Trichoptera	Caddis flies
Order	Lepidoptera (Pyrallidae)	Aquatic caterpillars
Order	Coleoptera	
	Family Haliplidae	Crawling water beetles
	Family Dystiscidae	Predaceous diving beetles
	Family Gyrinidae	Whirligig beetles
	Family Hydrophilidae	Water scavengers
	Family Psephenidae	Water pennies
	Family Elmidae	Riffle beetles
	Family Helodidae	Marsh beetles
	Family Noteridae	Burrowing water beetles
	Family Chrysomelidae	Leaf beetles
	Family Dryopidae	Long-toed water beetles
Order	Diptera	
	Family Blepharoceridae	Net-winged midges
	Family Tipulidae	Crane flies
	Family Ptychopteridae	Phatom crane flies
	Family Psychodidae	Moth flies

Family Dixidae	Dixa midges
Family Culicidae	Mosquitoes, phantom midges
Family Simulidae	Blackflies
Family Tendipedidae	Midges
Family Ceratopongidae	Biting midges
Family Stratiomyiidae	Soldierflies
Family Tabanidae	Horseflies, deerflies
Family Rhagionidae	Snipe flies
Family Syrphidae	Rat-tailed maggots
Family Tetanoceridae	Marsh flies
Family Ephydridae	Shore flies

APPENDIX E NUISANCE OR UNDESIRABLE PLANT SPECIES FOUND IN WETLANDS IN CENTRAL FLORIDA

Common Name	Scientific Name	Nuisance or Undesirable
air-potato	*Dioscorea bulbifera*	N
alligator weed	*Alternanthera philoxeroides*	N
Australian pine	*Casuarina equisetifolia*	U
bahia grass	*Paspalum notatum*	U
balsam apple	*Momordica charantia*	U
Bermuda grass	*Cynodon dactylon*	U
bittermint	*Hyptis mutabilis*	U
Brazilian pepper	*Schinus terebinthifolius*	N
Caesar's weed	*Urena lobata*	U
cattail	*Typha spp.*	N
Chinese tallow	Sapium sebiferum	N
climbing ferns	*Lygodium spp.*	U
climbing hempvine	*Mikania scandens*	N
cogon grass	*Imperata sp.*	N
coinwort	*Centella asiatica*	U
crabgrass	*Digitaria ciliaris*	U
cuphea	*Cuphea carthagenensis*	U
day-flower	*Commelina diffusa*	U
dog fennel	*Eupatorium capillifolium*	U
false pimpernel	*Lindernia grandiflora*	U
grass	*Axonopus affinis*	U
guava	*Psidium guajava*	U
melaleuca	*Melaleuca quinquenervia*	N
murdannia	*Murdannia nudiflora*	U
para grass	*Brachiara mutica*	N
primrose willow	*Ludwigia peruviana*	N
sedge	*Cyperus rotundus*	U
sesbania	*Sesbania spp.*	U
sorrel	*Oxalis corniculata*	U
southern willow	*Salix caroliniana*	U
sword fern	*Nephrolepis cordifolia*	U
taro	*Colocasia esculenta*	U
torpedo grass	*Panicum repens*	N
tropical soda apple	*Solanum tampensis*	U
Vasey-grass	*Paspalum urvillei*	U
water primrose	*Ludwigia octovalvis*	N
water hyacinth	*Eichornia crassipes*	N
water lettuce	*Pistia stratiotes*	N
wedelia	*Wedelia trilobata*	U
wild Boston-fern	*Nephrolepis exaltata*	U

N = Nuisance - native or exotic plants which have the capability to severely alter the diversity and/or structure of a wetland ecosystem.

U = Undesirable - inappropriate species but not usually severely disruptive to wetland diversity and/or structure.

Project Name _____
Wetland No _____
Reviewer(s) _____

Date _____**199**____
Wetland Group ID _____

FORM 3-2

IMC-Agrico

WETLAND RAPID ASSESSMENT PROCEDURE

Evaluation Matrix
(IMCWRAP)

WARNING

THIS FORM IS MEANT TO BE A FIELD AID AND NOT AS A SUBSTITUTE FOR THE GUIDANCE PROVIDED IN THE IMC-WRAP DOCUMENT

WILDLIFE UTILIZATION	Select Score	WETLAND OVERSTORY/SHRUB	Select Score	WETLAND GROUNDCOVER	Select Score
No Evidence of Wildlife Use Existing wetland heavily impacted No evidence of wildlife utilization Little/no habitat for native wildlife	0.0	**No Desirable Overstory / Shrub** No desirable tree & shrub species Negligible or little habitat support from seedling trees Recent clear cutting w/ evidence of canopy revegetation >75% undesirable plant species	0.0	**No Desirable Groundcover** Groundcover > 75% undesirable species Groundcover intensely maintained, managed or impacted Freshly mulched mitigation site with no evidence of seed germination	0.0
	0.5		0.5		0.5
Minimal Evidence of Wildlife Use MInimal evidence of wildlife use Little habitat for birds, small mammals, and/or reptiles Limited adj. upland food sources In area of frequent human disturbance	1.0	**Minimal Desirable Overstory / Shrub** Approx. 50 % undesirable trees & shrubs Overstory and Shrub immature but potential for habitat support Natural recruitment of trees & shrubs Snags due to hydrologic or environmental problems Disease or insect damage to live canopy	1.0	**Minimal Desirable Groundcover** ≥ 50% undesirable vegetation Groundcover routinely managed Newly planted mitigation site Newly mulched site, signs of germination	1.0
	1.5		1.5		1.5
Moderate Evidence of Wildlife Use Use by small/med. mammals, and/or reptiles Aquatic macroinvertebrates, amphibians, and/or forage fish Adequate adjacent upland food sources Minimal human disturbance Adequate wildlife cover/habitat in wetland or adjacent upland	2.0	**Moderate Desirable Overstory / Shrub** < 25% undesirable canopy trees & shrubs Wetland overstory and shrub providing habitat support Some natural recruitment of native overstory and shrub seedlings Healthy canopy trees, minimal disease/insect damage	2.0	< 25% undesirable species Slight human induced impacts Mulched or planted areas w/ established desirable species	2.0
	2.5		2.5		2.5
Strong Evidence of Wildlife Use Use by large mammals and/of reptiles Abundant aquatic macroinverts, amphibians and /or forage fish Abundant upland food sources Negligible human disturbance Abundant cover/habitat for wildlife within the wetland or adj. upland.	3.0	**Abundant Desirable Wetland Overstory / Shrub** < 10% invasive canopy & midstory species Good habitat support by overstory and shrub Strong evidence of natural recruitment of native trees & shrubs Some snags or den trees Healthy live canopy, minimal disease or insect damage	3.0	**Abundant Desirable Groundcover** < 10% nuisance plants, no exotic plants Minimal/no disturbance to groundcover Managed or natural periodic burns	3.0
Variable Scores					

NOTES:

ADJ. UPLAND/WETLAND BUFFER	Select Score	HYDROLOGIC INDICATORS	Select Score	WATER QUALITY INPUT & TREATMENT	Select Base Score
No Adj. Buffer Buffer nonexistent	0.0	**Hydrology Severely altered, Succession to Transitional/ Upland or Open water** Hydrology severely altered Hydroperiod inadequate to support particular community type Upland plants encroaching into historic wetland area Wetland plant die-off Substantial soil subsidence	0.0	**Land Use Category** FLUCFCS Code Description 211 Improved Pasture 212 Unimproved Pasture 213 Woodland Pasture 214 Row Crops 221 Citrus 310 Herbaceous Rangeland 320 Shrub and Brushland 330 Mixed Rangeland 411 Flatwoods 420 Upland Forest 512 Ditch/canal 520 Lake 534 Ponds < 10 ac.(& cattle) 600 Wetlands 800 Transportation (RR & ROW * Base LU score can be adjusted per on site specific conditions as follows: No influence +0.5 Mod. Influence +/- 0.0 Sign. Influence - 0.5	**Base Score*** 1.5 2.5 1.5 0.5 0.5 2.5 2.5 2.5 2.5 2.5 1.0 2.0 0.5 2.5 0.5
	0.5		0.5		
Buffer ≤ 30' average width w/ desirable species < 30' ave. buffer width Mostly desirable plants that provide cover, food, roosting for wildlife Not connected to wildlife corridors > 300' wide, but > 75% exotic/nuisance invasive species plants	1.0	**Hydrology Inadequate to maintain viable wetland** Hydroperiod inadequate to maintain particular community type Succession to transitional/upland species, wetland veg. Stressed Evidence of soil subsidence	1.0		
	1.5		1.5		
Buffer 30'-300' wide, predom. desirable plants Buffer 30'-300' wide Desirable plants provide cover, food, roosting for wildlife Portions connected to offsite wetland system/ **designated** wildlife corridor Buffer > 300', but predom. Undesirable non-invasive plant species	2.0	**Hydrology Adequate, Poss. External Influences** Hydroperiod adequate, possible interfering conditions No plant stress from too little/too much water Little soil subsidence	2.0	**Pretreatment Modifier**** Berms, lakes, wet detention with swales, wet detention with dry retention, No treatment **use only when specific treatment is provided	0.5 0.0
	2.5		2.5		
Buffer > 300', Predom. Desirable Plant Species Buffer width > 300' average < 10% nuisance/exotic species Connected to offsite wetlands or **designated** wildlife corridor	3.0	**Hydrology Adequate** Plants healthy, no stress Natural hydroperiod Not adj. To negative impacts No soil subsidence	3.0		
Variable Scores					
		Total Variable Scores		**0.0**	
		Total Variable Maximum			
		IMC-WRAP SCORE		**#DIV/0!**	

Notes:

APPENDIX E
EVIDENCE OF SUCCESSFUL RECLAMATION

APPENDIX E

EVIDENCE OF SUCCESSFUL RECLAMATION

A summary of both wetland and upland reclamation projects conducted by IMC is described in this appendix. Table 4.E-1 lists successfully reclaimed wetlands that have been released by the permitting agencies.

Certain vegetative communities that IMC proposes to create in the post-reclamation landscape at the Ona site (wet prairie, bay swamp, gum swamp, stream swamp, pine flatwoods, and palmetto prairie) have not been, to date, created on reclaimed lands elsewhere to the satisfaction of certain regulatory agency/workgroup members.

The applicant is confident about their ability to create equally productive post-reclamation habitats on a site-wide basis for three reasons. First, the upland and wetland habitats with the highest functional capacities at the Ona site would not be disturbed by mining. In addition to the functional capacity, or quality, of these habitats, it is also central to IMC's plans that the undisturbed habitats would form the core corridors of the overall post-reclamation habitat scenario. These two facts combine to form the argument that the created habitats need only to serve to broaden the core corridors and link them together to be successful. Thus, the IMC plan does not rely upon the premise that the created habitats must, in and of themselves, provide the entire functional capacity as would be the case if 100 percent of the property was disturbed during the mining of the Ona site.

Second, the positioning of the post-reclamation habitat to serve as connecting links between the "no-mine areas of conservation interest" should result in synergistic increases in the functional capacity of the post-reclamation habitat when compared to the existing patchwork quilt positioning of the habitat proposed to be disturbed. Reclamation of natural habitat adjacent to undisturbed existing habitat should be more successful, over time, due to the improved ability to precisely predict post-reclamation normal pool and seasonal high water level elevations in created wetlands. Furthermore, the natural vegetative succession that would occur from the existing, undisturbed habitat seed source outward into the created habitat would increase vegetative diversity.

Finally, significant acreages of post-reclamation habitat would not be created for another 10 to 15 years due to the mine sequencing and habitat reclamation positioning plans. During this time frame, IMC and other researchers would continue to study and advance the knowledge base in upland and wetland habitat creation. While 10 to 15 years may seem to be a relatively short time period, it is quite significant when considering that the first full-scale wetland creation effort was planted only 22 years ago, the first full-scale "mucking" of wetlands was performed only 19 years ago, the first large-scale xeric reclamation projects were performed less than 17 years ago, and pine flatwoods and palmetto prairie reclamation was not even being considered necessary as little as 15 years ago. Given this scenario, combined with the factors discussed above, the applicant

strongly disagrees with the logic that because certain habitats have not yet been created to the satisfaction of all, it would not be possible to do so in the future.

Bay Swamps

Evidence of IMC's ability to create bay/gum swamps is represented by the Alderman Creek Bay Swamp project in Hillsborough County at the Four Corners Mine. Through the use of a variety of planting techniques, the objective is to create immature bay swamps that would mature into systems similar to those observed at the Ona site. Results to date include evidence that the hydrology is adequate, preliminary survival rates are encouraging, and wildlife utilization has been immediate.

Forested Wetland Ecological Capacity

To demonstrate the ability of created forested wetlands to reach ecological capacity in 15 years, IMC utilized the Wetland Rapid Assessment Procedure (WRAP) to measure the functional capacity of IMC's created wetlands during the past 20 years. Over sixty reclaimed wetlands were assessed, twenty of which were forested wetlands of approximately 15 years in age.

Median values for the six WRAP criteria in forested (coniferous and mixed forested) wetlands were as follows (maximum score: 3.0): Wildlife Utilization: 2.0; Overstory Vegetation: 2.0; Ground Cover: 1.75; Adjacent Buffer: 2.5; Hydrology: 2.25; Water Quality: 2.4. The overall median score (maximum: 1.0) for the created forested wetlands was 0.70 compared to a median score of 0.67 on the forested wetlands currently existing at the Ona site. The slightly higher WRAP score on reclaimed wetlands is in large part due to the categories of adjacent buffer and hydrology. The adjacent buffer and hydrology components are often reduced in the pre-mining landscape due to conversion of adjacent uplands to improved pasture and ditching of wetlands.

Pine Flatwoods

IMC has successfully restored a flatwoods community within the uplands portion of the Hardee Lakes reclamation project that was recently donated to Hardee County. Techniques have been developed to collect and propagate the understory species present in flatwoods including palmetto, wiregrass, and muhlygrass. Both IMC and CF Industries have utilizing mulching to revegetate large parcels in Hardee County targeted for reclamation as flatwoods. The Hardee Lakes reclamation project was mulched in the 1990's and has developed a diverse shrub and groundcover community beneath the canopy of slash pine and sand live oak, including saw palmetto, bushy goldenrod, elliott's milk pea (Galactia elliottii), broomsedge and thin paspalum. Comparison of the reclaimed site to the pre-mining condition suggests that the primary vegetative components of pine flatwoods have been successfully established on reclaimed lands. At CF Industries' Hardee Phosphate Complex located immediately north of the Ona site, FDEP issued an outstanding reclamation award for the successful reclamation of 70 acres of pine flatwoods, further evidence that pine flatwoods reclamation is an achievable goal.

Xeric Scrub

IMC has completed, and is currently working on, a number of scrub and xeric reclamation projects. The “Best of the West” scrub reclamation has received awards for its success and boasts a high diversity of plant and wildlife species. It is the most mature scrub reclamation project at IMC and was constructed in the 1980s by spreading scrub soils and plant material from a site being cleared to a nearby, reclaimed site consisting primarily of graded sandy overburden. Additional planting of nursery stock and wildlife restocking followed. Sampling after four years of establishment indicated a scrub oak density of over 4,000 trees per acre. Groundcover grasses and shrubs that are present and reproducing on the site include wiregrass, brushy bluestem, tarflower, gopher apple, prickly-pear cactus, staggerbush, Florida rosemary, and many other species typically found in central Florida scrub communities. One scrub species of orchid, wild coco (*Pteroglossapsis scristata*), and the scrub plant nodding pinweed (*Lechea cernau*), listed as rare or imperiled by Chapter 9J-2.041, F.A.C. are also present. The site has responded well to natural habitat management techniques such as fire and is providing habitat to a number of listed wildlife species. Animal species that typically inhabit scrub communities have migrated to this reclamation site or have been relocated to the site as part of IMC’s listed species management program. These species include the Eastern indigo snake, the Florida gopher tortoise, five families of the Florida scrub jay, and the Florida mouse. Numerous other bird, mammal, amphibian, and reptile species inhabit this 100-plus acre site. Appendix AI-12-A of the CDA contains a report documenting wildlife usage at the “Best of the West” and a qualitative vegetation list from the “Best of the West”. Portions of the site were burned in the spring of 2000; subsequent indications of resprouting, diminished fuel loads, and canopy cover suggest that this reclaimed site is pyrogenic and able to withstand fire. The reader is, also, referred to the study entitled “An Evaluation of Xeric Habitat Reclamation at a Central Florida Phosphate Mine” published by the Office of Environmental Services, Florida Game and Freshwater Fish Commission in July, 1992, that documents the establishment of the “Best of the West” scrub habitat.

Table 4.E-1 - Wetlands that IMC has Reclaimed and Have Been Released

Agency	Mine	Project Area	Wetland Mitigation Acreage				
			Herbaceous	Forested	Open Water	Enhancement	Total
USACE	Ft. Green	12.0-ac Marsh	12				12
USACE	Ft. Green	6.0-ac Marsh	6				6
USACE	Ft. Green	42.0-ac Marsh	42				42
USACE	Ft. Green	Whale 30.4-ac Marsh	30.4				30.4
USACE	Ft. Green	Big Marsh Wetland	184	45			229
USACE	Ft. Green	Hardee Lakes wetland restoration project		124			124
USACE	Ft. Green	Herbaceous Wetland Reclamation 2.3-ac	2.3				2.3
Both	Ft. Green	Trio Marshes	110				110
USACE	Ft. Green	North Waters Tract/FG-GSB-2A	42				42
USACE	Four Corners	MU 5 & 6/Wetlands C, D, and E	166.8	24.5			191.3
USACE	Four Corners	Manatee Co./SR 37 Wetland H	70.4				70.4
USACE	Four Corners	Little Manatee River Dragline Crossing		1.2			1.2
USACE	Four Corners	MU 8 Preserve Wetland “S”				7.2	7.2
Both	Four Corners	Wetland G	40	20			60
USACE	Payne Creek	PC-PC-2 Phase 1 Wetland Reclamation		32.3			32.3
USACE	Payne Creek	Drainage Way Reclamation site 1.4-ac		1.4			1.4
USACE	Payne Creek	206-ac of Wetlands AG East	102	104			206
USACE	Phosphoria	Instant and So. Pebbledale	14.5	12.5	5		32
USACE	Phosphoria	7/12 Stream	65	60			125
EPC	Kingsford	MU H STR 25-30-22		9			9
Both	Ft. Green	FG-84 (5)		14.6			14.6
Both	Ft. Green	FG-84 (5)	42.1				42.1
FDEP	Payne Creek	8.4-ac Forested Wetlands		8.4			8.4
FDEP	Phosphoria	Hal Scott Wetland, Noralyn/Phosphoria Mine	65	60			125
TOTAL			994.5	516.9	5	7.2	1,523.60

Source: IMC, 2002.

APPENDIX F
NET ECOLOGICAL BENEFITS SUMMARY

APPENDIX AI-10-A

NEB SUMMARY

FOREWORD

IMC has restructured and revised the proposed NEB's that were presented in the April 2000 CDA. Some new ones have been added, some old ones have been dropped and others have been amended. In addition, the NEBs--even the ones that did not change--have been completely renumbered, without regard to former numbers. Thus, to avoid confusion, please disregard the original list and refer only to the list included in this submittal which has been printed in its entirety. Please note, however, that the content of this issuance is essentially the same as that submitted and reviewed at the Team Permitting meeting held in October 2000.

Each revised or new NEB has been included in one of three categories. The NEB categories are: 1) Ecological; 2) Process; and 3) Community Value. Any NEBs that were included in the original Ona CDA submittal have been cross referenced in this revision for ease of comparison (see NEB # in parentheses after the bullet statements below). Any NEB without a number in parentheses has been added since the original submittal. As stated in the Ecosystem Management Team Permitting Agreement, a net ecosystem benefit in the Team Permitting process means that the result must be more favorable to the ecosystem than under conventional permitting review. Many of the following opportunities for net benefits were discussed and deemed sufficient to warrant an ecosystem permitting approach to reviewing the applications.

INDEX OF NEB's

Ecological - Net Ecological Benefits

NEB's Nos. 1 through 5 are proposed to be included in the attached Conservation Easement. The location and extent of
the Conservation Area lands are shown on a composite Figure NEB 0.

NEB#

1. Conservation Easement on the Horse Creek Floodplain on the Ona Tract. (formerly NEB #3)
2.
3. Conservation Easement on the Brushy Creek Corridor on the Ona Tract. (formerly NEB #3)
4.
5. Conservation Easement on an Enlarged Horse Creek Corridor on the Fort Green Souther Reserves Tract.
6.
7. Conservation Easement on East-West Natural Systems Corridor on the Ona Tract
8.
9. Conservation Easement on the Oak/Brady Creek Corridor on the Ona Tract
10.
11. Habitat Enhancement Parcels in Non-Disturbed Areas Options a, b, & c. (formerly NEB #13)
12.
13. Donation of Additional Lands to Hardee County to Expand Hardee Park.
14.
15. Donation of Undisturbed Payne Creek Floodplain Forest Wetlands to Hardee County that lie east of Hardee Park
16. with Conservation Easement.
17.
18. Areas of Conservation Interest - No Mining Disturbance. (formerly NEB #8)
19.

20. Protection of Listed Plants Through Relocation. (formerly NEB#10)
21.
22. Restoration of a Segment of Six Mile Creek
23.
24. Cabbage and Needle Palm Relocation.
25.
26. Amphibians Relocation Research Project.
27.
28. Florida Burrowing Owl (*Speotyto cunicularia*) Relocation Research Project.
29.
30. Restoration of Some Historic Water Flow and Hydrology in the Peace River System (formerly NEB #5)
31.
32.
33.
34.Process - Net Ecological Benefits
35.
36.16. Holistic Focus on Ecosystems (formerly NEB's #1, #7 & #9)
37.
38.17. Formalized, Early, and Continuing Public Participation (formerly NEB #2)
39.
40.
41.
42.
43.Community - Net Ecological Benefits:
44.
45.18. Improvement of Recreational Opportunities. (formerly NEB #6)
46.
47.19. Archaeological Re- Survey of the Mississippi Chemical Tract area. (formerly NEB #12)
48.
49.

NEB #1

Title: Conservation Easement on the Horse Creek Corridor on the Ona Tract.

Abstract: IMC Phosphates proposes to grant a perpetual conservation easement to the FDEP (or SWFWMD) to provide permanent protection for the Horse Creek-associated 100-year floodplain that lies above lands claimed by FDEP as sovereign submerged lands (SSL), and additional contiguous lands, which collectively will be referred to by IMC as the "Horse Creek Corridor on the Ona Tract".

Site Map: Figure NEB 1 illustrates the location of the Horse Creek Corridor on the Ona Tract.

Total Area/Location: The total area addressed in the conservation easement is about 519 acres. Approximately 3.9 miles of the Horse Creek channel (or about 9.1 percent of its total length) is proposed to be protected in Sections 8, 9, 16, 17, 20, 28, and 29, Township 34 south, Range 23 east in Hardee County.

Sovereign Submerged Lands (SSL) Area: Since proposing the preservation of the Horse Creek corridor in October 2000, IMC has learned that FDEP intends to claim ownership below the ordinary high water line, or man annual flood elevation, of Horse Creek as "sovereign submerged lands" (see FDEP letter in Tab 3). Figures NEB-0 and NEB-1 illustrate this area, which is about 127 acres.

Project Description: Within the Ona tract, IMC is working to reach agreement with the FDEP (or SWFWMD) to protect the Horse Creek Corridor permanently through the granting of a Perpetual Conservation Easement. A copy of an example of the Conservation Easement that IMC has proposed is attached at the end of this section. Figure NEB-1 illustrates the areal extent of the lands subject to the proposed easement.

As described in the Conservation Easement and shown on Figure NEB 1, the land in the Horse Creek Corridor has been subdivided into two categories: (1) Category "A" lands are those portions of the Corridor that will not be disturbed by mining activities; and (2) Category "B" lands are those portions of the Corridor that could be enhanced if selected as the preferred alternative for NEB #6. The project consists of protecting the Category "A" lands from development in perpetuity and, following completion of enhancement or reclamation activities, providing the same permanent protection for the Category "B" lands.

Timeline/Schedule: The Conservation Easement for the Category "A" lands will become effective and recorded in the Public Records of Hardee County, Florida within six months after the commencement of mining on the Ona tract. The Conservation Easement for the Category "B" lands will become effective and recorded in the Public Records of Hardee County, Florida within six months after the "release" of all Ona lands from any local, state or federally imposed reclamation or mitigation requirements.

Proposed Protection Mechanism: Please refer to the proposed example Conservation Easement.

Monitoring for Compliance: FDEP (or SWFWMD) shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to grant such an easement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order.

In the U.S. Army Corps of Engineers (USACOE) Clean Water Act Section 404 permit application, IMC is

proposing to include the proposed avoidance of wetland impacts within the Horse Creek floodplain as one component of the mine-wide compensatory mitigation plan to prevent the temporal loss of wetland functional capacity elsewhere on the Ona tract. However, no corresponding temporal loss offsets are required by the regulations adopted to govern the issuance of Environmental Resource Permits (ERP) by the Florida Department of Environmental Protection (FDEP) and the ERP mitigation plan does not rely upon avoidance or enhancements in the area shown in Figure NEB-1 to fulfill FDEP ERP or CRP mitigation requirements. Therefore, IMC's proposal qualifies as a NEB because it clearly exceeds the requirements of State regulations.

Furthermore, with the exception of the Hardee County Comprehensive Plan, there are no regulations which prohibit the mining disturbance of the uplands within the Horse Creek Corridor that comprise a portion of this NEB. The Hardee County Comprehensive Plan permits only livestock pasturing or residential densities of one dwelling unit per 20 acres within a corridor along the Horse Creek Channel that measures the lesser of the width of the 100-year floodplain or 500 feet on each side. Therefore, the NEB consists of preventing mining in those portions of the Horse Creek Corridor that are not protected by the Comprehensive Plan, the development of any residential structures, and the conversion of natural systems to improved pasture.

The area encompassed by this NEB has been identified by various governmental agencies as an important regional natural systems corridor that offers wildlife habitat, water quantity, and water quality benefits. These agencies include:

- FDEP - Integrated Habitat Network Designation;
- FFWCC - Closing the Gaps" Study Corridor"; and
- SWFWMD - Core Habitat and Linkages Designation.

The SWFWMD March 2000 Resource Evaluation Report recommends that this area be targeted for acquisition under the Preservation 2000/Save Our Rivers Programs.

On a site-specific basis, this area contains high-quality forested wetlands and contiguous high-quality pine flatwoods along the northern boundary (in Section 9, T 34S, R 23E) where the protected lands will extend above the 100-year floodplain. These upland areas can serve as suitable red-cockaded woodpecker habitat in the future in accordance with the recommendations of the FFWCC and Dr. Reed Bowman. Eleven species of listed plants occur in this area. The width of the corridor generally exceeds 1,000 feet.

In summary, then, the Horse Creek Corridor clearly qualifies as a NEB because:

1. IMC will not rely upon avoidance or enhancement of wetlands in the Horse Creek Corridor to fulfill FDEP ERP or CRP mitigation obligations;
2. The proposed Conservation Easement is permanent;
3. The proposed Conservation Easement is verifiable and enforceable;
4. The proposed Conservation Easement precludes future permit amendments (Notices of Proposed Change;)
5. The proposed Conservation Easement protects lands not otherwise offered permanent protection through regulations (e.g., 404, ERP, and Comprehensive Plan);
6. The Category "A" and "B" lands lie within the Horse Creek portion of the IHN, Closing the Gaps, and SWFWMD "Core Habitat and Linkages" Model on the Ona tract; and
7. The Conservation Easement prescribes land uses and management plan restrictions that will preserve the existing conditions on the Category "A" lands and the reclaimed conditions on the Category "B" lands.

NEB #2

Title: Conservation Easement on the Brushy Creek Corridor on the Ona Tract.

Abstract: IMC Phosphates proposes to grant a perpetual Conservation Easement to the FDEP (or SWFWMD) to provide permanent protection for the Brushy Creek channel, much of the associated 25-year floodplain, and additional contiguous lands, which collectively will be referred to by IMC as the "Brushy Creek Corridor on the Ona Tract".

Site Map: Figure NEB 2 illustrates the location of the Brushy Creek Corridor on the Ona Tract.

Total Area/Location: The total area addressed in the Conservation Easement is 2,031 acres. Approximately 4.25 miles of the Brushy Creek channel (or about 29 percent of its total length) is proposed for protection in Sections 11 through 14, 23 through 26, and 36, Township 34 south, Range 23 east in Hardee County and Section 31, Township 34 south, Range 24 east.

Project Description: Within the Ona tract, IMC is working to reach agreement with the FDEP (or SWFWMD) to protect the Brushy Creek Corridor permanently through the granting of a Perpetual Conservation Easement. A copy of an example of the Conservation Easement that IMC is proposing is attached at the end of this section. Figure NEB 2 illustrates the areal extent of the lands subject to the proposed easement.

As described in the Conservation Easement and shown on Figure NEB 2, the land in the Brushy Creek Corridor has been subdivided into two categories: (1) Category "A" lands are those portions of the Corridor that will not be disturbed by mining activities; and (2) Category "B" lands are those portions of the Corridor that will be disturbed by mining activities (i.e., mining of selected portions of the 25-year floodplain and the construction and use of the mine access/utility crossings in Sections 23 through 26, Township 34 south, Range 23 east) or may be selected as an area to be enhanced as described in NEB #6. The project consists of protecting the Category "A" lands from development in perpetuity and, following completion of enhancement and/or reclamation activities, providing the same permanent protection for the Category "B" lands.

Timeline/Schedule: The Conservation Easement on the Category "A" lands will become effective and recorded in the Public Records of Hardee County, Florida within six months after the commensal of mining on the Ona tract.. The Conservation Easement will become effective and recorded in the Public Records of Hardee County, Florida on the Category "B" lands within six months after the "release" of all Ona lands from any local, state or federally imposed reclamation or mitigation requirements.

Proposed Protection Mechanism: Please refer to the attached example Conservation Easement.

Monitoring for Compliance: FDEP or SWFWMD shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to grant such an easement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order.

In the U.S. Army Corps of Engineers (USACOE) Clean Water Act Section 404 permit application, IMC is proposing to include the proposed avoidance of wetland impacts within the Brushy Creek floodplain as one component of the mine-wide compensatory mitigation plan to prevent the temporal loss of wetland functional capacity elsewhere on the Ona tract. However, no corresponding temporal loss offsets are required by the

regulations adopted to govern the issuance of Environmental Resource Permits by the Florida Department of Environmental Protection (FDEP) and the ERP mitigation plan does not rely upon avoidance or enhancements in the area shown in Figure NEB 2 to fulfill FDEP ERP or CRP mitigation requirements. Therefore, IMC's proposal qualifies as a NEB because it clearly exceeds the requirements of State regulations.
Furthermore, there are no regulations which prohibit the mining or other disturbance of the uplands within the Brushy Creek Corridor that comprise a portion of this NEB.

The Brushy Creek Corridor has been found to provide regional wildlife habitat, water quantity, and water quality benefits by several governmental agencies, including:

- FDEP - Integrated Habitat Network;
- FFWCC - "Closing the Gaps" Corridor; and
- SWFWMD - "Core Habitat and Linkages" Corridor.

The SWFWMD staff recommended acquisition of this area under the Save Our Rivers/Preservation 2000 programs.

On a site-specific basis, the protected property, which measures between one-half and one and one-third miles wide, contains significant acreage of the highest-quality forested wetlands onsite and contiguous adjacent upland natural systems. Eight different listed wildlife species were observed in the protected area, including a sandhill crane nesting site. South of SR 64, a rookery is present that contained approximately 50 nests of great egrets, little blue herons, snowy egrets, and possibly white ibis. Seven different listed plant species were also observed. The protected area includes significant acreage of mature pine flatwoods which lie above the 25-year floodplain; these areas total 300 acres that can permanently serve as potential red-cockaded woodpecker habitat.

In summary, then, the 2,031-acre Brushy Creek Corridor clearly qualifies as a NEB because:

1. IMC will not rely upon avoidance of wetlands in the Brushy Creek Corridor to fulfill FDEP ERP or CRP mitigation obligations;
2. The proposed Conservation Easement is permanent;
3. The proposed Conservation Easement is verifiable and enforceable;
4. The proposed Conservation Easement precludes future permit amendments (Notices of Proposed Change;)
5. The proposed Conservation Easement protects lands not otherwise offered protection through regulations (e.g., 404 ERP, and Comprehensive Plan);
6. The Category "A" and "B" lands lie within the Brushy Creek portion of the IHN, Closing the Gaps, and SWFWMD "Core Habitat and Linkages" Model on the Ona tract; and
7. The Conservation Easement prescribes land uses and management plan restrictions that will preserve the existing conditions on the Category "A" lands and the reclaimed conditions on the Category "B" lands.

NEB #3

Title: Conservation Easement on an Enlarged Horse Creek Corridor on the Fort Green Southern Reserves Tract.

Abstract: IMC Phosphates proposes to grant a Perpetual Conservation Easement to FDEP (or SWFWMD) to provide permanent protection for lands contiguous to an existing Conservation Easement area along Horse Creek, which will be referred to by IMC as the "Enlarged Horse Creek Corridor on the Fort Green Southern Reserves Tract".

Site Map: Figure NEB 3 illustrates the location of the existing and enlarged Horse Creek Corridor on the Fort Green Southern Reserves Tract.

Total Area/Location: The total area addressed in this Conservation Easement is 664 acres. IMC has previously agreed to place a Conservation Easement on a portion of the 25-year floodplain of Horse Creek as part of the FDEP-approved compensatory mitigation plan for permit area no. 0142476-001 - Fort Green Mine 25-Year Permit. This proposed NEB will provide for the protection of expanded land areas adjacent to Horse Creek. These areas, shown in Figure NEB 3, are located in Sections 20, 29, and 32 in Township 33 south, Range 23 east and Sections 5 and 8 in T34S, R23E. This land area envelopes 3.4 linear miles of Horse Creek (or about 8 percent of its total length). Together with NEB #1, the Horse Creek Corridor will be protected from SR 62 south to SR 64, or about 17 percent of its length.

Project Description: As described in the example of the proposed Conservation Easement, attached, and shown on Figure NEB 3, the lands in the Enlarged Horse Creek Corridor on the Fort Green Southern Reserves Tract at the end of this section, have been or will be mined or otherwise disturbed by mining activities. The project consists of protecting the additional lands that buffer an existing conservation area from development in perpetuity following completion of enhancement or reclamation.

Timeline/Schedule: The Conservation Easement will become effective on and recorded in the Public Records of Hardee County, Florida within six months after the "release" of all Fort Green Southern Reserves lands from any local, state or federally imposed reclamation requirements.

Proposed Protection Mechanism: Please refer to the attached example Conservation Easement.

Monitoring for Compliance: FDEP (or SWFWMD) shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to grant such an easement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order. The mining and reclamation plans approved by USACOE, FDEP, and Hardee County for the lands shown in Figure NEB 3 do not impose conditions that require this proposed NEB Conservation Easement to be granted. It is important to distinguish this proposed NEB Conservation Easement from the Conservation Easement already granted by IMC to FDEP covering lands lying within the 25-year floodplain as that easement relates to permit no. 0142476-001. No other regulatory approvals are required to implement the approved Fort Green Southern Reserves mining and reclamation plan.

There are no regulations that absolutely prohibit disturbance of the lands illustrated in Figure NEB-3, although it is recognized that USACOE and FDEP have regulatory authority over certain jurisdictional areas within these areas. Also, the Hardee County Comprehensive Plan permits only livestock pasturing or residential dwellings at a density of one unit per 20 acres within a corridor along the Horse Creek channel at a width of the 100-year floodplain or 500

feet on each side, whichever is less; the lands encompassed by this proposed NEB Conservation Easement lie principally outside the corridor addressed by the Hardee County Comprehensive plan.

The enlarged Horse Creek Corridor is over one-half mile wide for most of this 3.4 mile segment, which effectively doubles the size of the existing protected area. Notably, the proposed enlargement is comprised of lands proposed to be reclaimed as natural systems and connects a large avoided, isolated wetland with the existing corridor. Further, this corridor is contiguous to protected lands identified in NEB #1 above.

The enlarged corridor will help achieve the goals outlined by several regional analyses of environmentally significant lands, including:

- FDEP - Integrated Habitat Network;
- FFWCC - "Closing the Gaps" Corridor; and
- SWFWMD - "Core Habitat and Linkages" Corridor.

Much of the land in the enlarged corridor has been targeted for acquisition by the SWFWMD staff in the March 2000 Horse Creek Resource Evaluation draft recommendations.

In summary, the 664 acres that will be permanently protected clearly qualify as a NEB for the following reasons:

1. None of these lands are required to be preserved or enhanced as part of a USACOE or FDEP mitigation plan;
2. The proposed Conservation Easement protects lands not otherwise afforded protection through regulation (i.e., the uplands not subject to 404, ERP, or Comprehensive Plan restrictions);
3. The proposed Conservation Easement precludes conversion of the land within the floodplain into low density residential or citrus or row or truck crop use;
4. The proposed Conservation Easement is permanent;
5. The proposed Conservation Easement is verifiable and enforceable;
6. The proposed Conservation Easement precludes future permit amendments (Notices of Proposed Change;)
7. The lands lie adjacent to or within the boundaries of the Horse Creek portion of the FDEP's IHN, FFWCC's Closing the Gaps, and SWFWMD's "Core Habitat and Linkages" targeted lands analyses; and
8. The NEB Conservation Easement prescribes land uses and management plan restrictions that will preserve the reclaimed conditions on the lands.

NEB #4

Title: Conservation Easement on East-West Natural Systems Corridor on the Ona Tract.

Abstract: IMC Phosphates proposes to grant a Perpetual Conservation Easement to the FDEP (or SWFWMD) to provide permanent protection for an east-west corridor of land that extends from the Brushy Creek Corridor to IMC's west property boundary in Section 28, Township 34 south, Range 23 east, which collectively will be referred to by IMC as the "East-West Corridor on the Ona Tract".

Site Map: Figure NEB 4 illustrates the location of the East-West Corridor on the Ona Tract.

Total Area/Location: The total area addressed in the Conservation Easement is about 700 acres. The East-West Corridor is located in Section 26 through 28, Township 34 south, Range 23 east in Hardee County.

Project Description: Within the Ona tract, IMC is proposing to grant a Conservation Easement to the FDEP (or SWFWMD) after mining and reclamation is complete to protect the East-West Corridor permanently. A copy of an example of the Conservation Easement is attached. Figure NEB 4 illustrates the areal extent of the lands subject to the proposed easement.

The project includes avoiding disturbance of Area of Conservation Interest No. 6 and reclaiming mined lands to the east and west of the avoided area to create an east to west wildlife habitat corridor. The intent of this corridor is to link the Horse and Brushy Creek Corridors that are proposed as NEB's #1 and #2.

The east-west corridor protection proposal offers numerous environmental benefits. The linkage of the Brushy and Horse Creek corridors is consistent with regional wildlife habitat management recommendations to link the "core corridors", which generally run in a north-south direction. In addition, this proposal ensures permanent protection of a complex xeric to wetland mosaic that includes 40 acres of sand live oak forest and over 175 acres of scrubby to mesic flatwoods. These areas harbor the highest concentration of gopher tortoises and commensals on the Ona tract and, according to Dr. Bowman, are the areas most likely for recolonization of red-cockaded woodpeckers on the site, given that evidence of historical colonization exists. The protected property contains sizeable acreages of extremely high quality forested wetlands, as well as listed plant and wildlife species.

Timeline/Schedule: The Conservation Easement will become effective and recorded in the Public Records of Hardee County, Florida within six months after the "release" of all Ona lands from any state or federally imposed reclamation or mitigation requirements.

Proposed Protection Mechanism: Please refer to the attached example Conservation Easement.

Monitoring for Compliance: FDEP (or SWFWMD) shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to grant such an easement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order.

In the U.S. Army Corps of Engineers (USACOE) Clean Water Act Section 404 permit application, IMC is proposing to include the proposed avoidance of wetland impacts within a portion of the East-West Corridor as one component of the mine-wide compensatory mitigation plan to prevent the temporal loss of wetland functional capacity elsewhere on the Ona tract. However, no corresponding temporal loss offsets are required by the

regulations adopted to govern the issuance of Environmental Resource Permits by the Florida Department of Environmental Protection (FDEP) and the ERP mitigation plan does not rely upon avoidance or enhancements in the area shown in Figure NEB 4 to fulfill FDEP ERP or CRP mitigation requirements. Therefore, IMC's proposal qualifies as a NEB because it clearly exceeds the requirements of State regulations.

Furthermore, there are no regulations which prohibit the mining or other disturbance of the uplands within the East-West Corridor that comprise this NEB. Therefore, the 700-acre East-West Corridor clearly qualify as a NEB because:

1. IMC will not rely upon avoidance or enhancement of wetlands in the East-West Corridor to fulfill FDEP ERP or CRP mitigation obligations;
2. The proposed Conservation Easement is permanent;
3. The proposed Conservation Easement is verifiable and enforceable;
4. The proposed Conservation Easement precludes future permit amendments (Notices of Proposed Change;)
5. The proposed Conservation Easement protects lands not otherwise offered protection through regulations (e.g., 404, ERP, and Comprehensive Plan);
6. The East-West Corridor provides, to the extent possible given IMC's land holdings, a link between the Horse Creek and Brushy Creek Corridors (see NEBs #1 and #2); and
7. The Conservation Easement prescribes land uses and management plan restrictions that will preserve the existing conditions on the undisturbed and reclaimed lands.

NEB # 5

Title: Conservation Easement on the Oak/Brady Creek Corridor on the Ona Tract.

Abstract: IMC Phosphates proposes to grant a perpetual Conservation Easement to the FDEP or SWFWMD to provide permanent protection for contiguous lands lying in the Oak and Brady Creek drainage basins and traversing approximately five (5) miles from north to south across the Ona Tract, which collectively will be referred to by IMC as the "Oak/Brady Creek Corridor on the Ona Tract".

Site Map: Figure NEB 5 illustrates the location of the Oak/Brady Creek Corridor on the Ona Tract.

Total Area/Location: The total area addressed in the Conservation Easement will be 568 acres. The property proposed to be protected lies in Sections 17, 20, 28, and 29 through 31, Township 34 south, Range 24 east in Hardee County.

Project Description: Within the Ona tract, IMC is working to reach agreement on a Conservation Easement to FDEP (or SWFWMD) to protect the Oak/Brady Creek Corridor permanently. A copy of an example of the Conservation Easement is attached. Figure NEB 5 illustrates the areal extent of the lands subject to the proposed easement.

The project consists of protecting both undisturbed and reclaimed lands from development in perpetuity. As described in the Conservation Easement and shown on Figure NEB 5, the Oak/Brady Creek Corridor consists of lands that will not be disturbed by mining activities as well as lands that will be disturbed by mining activities *(i.e.*, mining of selected portions of Section 17 and 20 and the construction and use of the mine access/utility crossings in Section 31, Township 34 south, Range 24 east). The Category E section will have special conditions that will allow a future road/utility crossing up to 500 ft. wide that provide access to the west from Ona - Ft. Green Springs Road.

The Oak/Brady Creek Corridor is proposed to serve as the third north-south corridor on the Ona tract. As such, this corridor will help achieve the goals of the FDEP-IHN, FFWCC-Closing the Gaps, and SWFWMD "Core Habitat and Linkages" Model. This corridor will provide linkages to both Brushy and Oak Creeks and offsite property connections. A majority of the corridor consists of areas that IMC is proposing to avoid due to the presence of high-quality forested wetlands and mesic pine flatwoods. Although IMC field surveys revealed the presence of only four listed plant and no listed wildlife species, the above referenced regional models evaluated this corridor as a leading candidate for protection. The SWFWMD staff recommended acquisition of this area in the March 2000 draft Resource Evaluation Report.

Timeline/Schedule: The Conservation Easement will become effective and recorded in the Public Records of Hardee County, Florida within six months after the "release" of all Ona lands from any and all local, state or federally imposed reclamation or mitigation requirements.

Proposed Protection Mechanism: Please refer to the attached example Conservation Easement.

Monitoring for Compliance: FDEP or SWFWMD shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to grant such an easement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order.

In the U.S. Army Corps of Engineers (USACOE) Clean Water Act Section 404 permit application, IMC is proposing to include the proposed avoidance of wetland impacts within the Oak/Brady Creek Corridor as one component of the mine-wide compensatory mitigation plan to preclude the temporal loss of wetland functional capacity elsewhere on the Ona tract. However, no corresponding temporal loss offsets are required by the regulations adopted to govern the issuance of Environmental Resource Permits by the Florida Department of Environmental Protection (FDEP) and the ERP mitigation plan does not rely upon avoidance or enhancements in the area shown in Figure NEB 5 to fulfill FDEP ERP or CRP mitigation requirements. Therefore, IMC's proposal qualifies as a NEB because it clearly exceeds the requirements of State regulations.

Furthermore, there are no regulations which prohibit the mining or other disturbance of the uplands within the Oak/Brady Creek Corridor that comprise this NEB. Therefore, the 568-acre Oak/Brady Creek Corridor clearly qualifies as a NEB because:

1. IMC will not rely upon avoidance or enhancement of wetlands within the Oak/Brady Creek Corridor to fulfill FDEP ERP or CRP mitigation obligations;
2. The proposed Conservation Easement is permanent;
3. The proposed Conservation Easement is verifiable and enforceable;
4. The proposed Conservation Easement precludes future permit amendments (Notices of Proposed Change;)
5. The proposed Conservation Easement protects lands not otherwise offered protection through regulations *(e.g.*, 404, ERP, and Comprehensive Plan);
6. The Category A and B lands lie within the IHN, Closing the Gaps, and SWFWMD "Core Habitat and Linkages" Model on the Ona tract; and
7. The Conservation Easement prescribes land uses and management plan restrictions that will preserve the existing and reclaimed conditions of the Category "B" lands and the reclaimed conditions on the Category "E" lands.

NEB #6

TITLE: Habitat Enhancement Parcels in Non-Disturbed Areas.

Abstract: In October 2000, IMC proposed several enhancement alternatives for areas in the Ona region, located within "no mine" portions of IMC land (both on and off the Ona Mine site). IMC has selected from the alternatives specific sites for enhancement. Habitat value will be increased by removal of exotic or nuisance species and/or planting of beneficial native vegetation.

Total Area/Location: Upon listening to the comments and feedback from the October 2000 meeting, it became apparent that the greatest areas of AWG/PWG interest lies with: 1) preserving or restoring pine flatwoods communities; and 2) only spending enhancement funds in areas that would ultimately receive long term protection in the form of the Perpetual Conservation Easement.

For that reason, IMC has selected a combination of sites from Figures NEB 6b and NEB 6c provided at the October 2000 meeting, and will restore pine flatwoods that will fall within the Conservation Easement boundaries, by planting up to 100 longleaf pine trees/acre. This 147 acres will be comprised of Parcels # 6 through 12, and Parcels # 20, 22 and 23, from figures NEB6b and NEB6c. All of these sites will ultimately have long term protection in the form of the Perpetual Conservation Easement.

As shown on Figures NEB 6b & 6-c, and Tables NEB 6-b, and 6-c indicate the number and acres of each selected enhancement parcel, and include: a) total land area, b) land use by acre, c) wetland number, and d) upland community number, if applicable.

Project Description: IMC proposes to enhance selected parcels from Figures NEB-6band NEB-6c: namely Parcels # 6 through 12 and # 20, 22 and 23, by planting longleaf pines in communities that would benefit from supplemental planting. The intent is to enhance up to 145 acres of pine flatwoods by planting a maximum of 100 longleaf pine trees/acre. The subcanopy and understory are in place and this longleaf pine supplemental planting would return these communities to a more natural and diverse condition. More detail on these sites can be found on Tables 6b and 6c. Parcels 6 through 12, about 93 acres, are located on the Ona Mine site, whereas Parcels 20, 22 and 23 with about 52 acres are located in areas adjacent to Horse Creek in the Fort Green Southern Reserves Tract. All Parcels are: 1) in areas that are not proposed for mining, 2) in areas to be enhanced pine flatwoods, and 3) in areas that will be included in the Perpetual Conservation Easement. Data provided for each area to be enhanced includes, a) total land area, b) land use by acre, c) wetland number if applicable, and d) upland community number, if applicable.

Timeline/Schedule: The enhancement will be performed uniformly over the first 5 years of mining within the Ona tract.

Proposed Protection Mechanism: Enhancement parcels 6 and 7 will be covered under the proposed Ona initial Conservation Easement. Enhancement parcels 8-12 will be covered under the proposed Ona Deferred Easement, and Parcels 20, 22 and 23 will be covered under the Fort Green Southern Reserves Conservation Easement.

Monitoring for Compliance: The County and FDEP will have normal permit compliance review during the mine operation, and FDEP (or SWFWMD) shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement during the post mining period. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Basis for NEB Determination: IMC is under no obligation to perform this habitat enhancement as a prerequisite to or condition of issuance of any federal, state, or local permit or Development Order.

In the U.S. Army Corps of Engineers (USACOE) Clean Water Act Section 404 permit application, IMC is proposing to include the proposed avoidance of wetland impacts as one component of the mine-wide compensatory mitigation plan to preclude the temporal loss of wetland functional capacity elsewhere on the Ona tract. However, no corresponding temporal loss offsets are required by the regulations adopted to govern the issuance of Environmental Resource Permits by the Florida Department of Environmental Protection (FDEP) and the ERP mitigation plan does not rely upon avoidance or enhancements in the area shown in Figures NEB 6b-c to fulfill FDEP ERP or CRP mitigation requirements. Therefore, IMC's proposal qualifies as a NEB because it clearly exceeds the requirements of State regulations.

Furthermore, there are no regulations which prohibit the mining or other disturbance of the uplands and wetland that comprise this NEB. Therefore, the 147-acres included in this enhancement clearly qualify as a NEB because:

1. IMC will not rely upon avoidance or enhancement to fulfill FDEP ERP or CRP mitigation obligations;
2. For most of the enhancement areas, they are also covered by Conservation Easement that is permanent;
3. The proposed enhancement work is verifiable and enforceable;
4. These land lie within the IHN, Closing the Gaps, and SWFWMD "Core Habitat and Linkages" Model on the Ona tract; and
5. The Conservation Easement prescribes land uses and management plan restrictions that will preserve the existing conditions on the reclaimed conditions of those within Category B lands.

Monitoring Plan: The status will be monitored in the annual reports.

Site Map: See Figures NEB-6b & c.

Table NEB 6-b

NEB #6
Habitat Enhancement Parcels in Non-Disturbed Areas
Located within the Ona Mine Site

	Total Acreage	Land Use	Acres	Wetland No.	UP No.
Parcel # 6 Selected Parcel	42.6	411	22.9		430906
		411	19.7		430908
Parcel #7 Selected Parcel	3.6	411	3.3		430901
		511	0.3	G041A	
Parcel #8 Selected Parcel	10.6	411	10.1		432203
		411	0.5	E196	
Parcel #9 Selected Parcel	1.7	211	1.7		N/A
Parcel #10 Selected Parcel	13.4	211	13.4		N/A
Parcel #11 Selected Parcel	14.7	411	14.7		441707
Parcel #12 Selected Parcel	8.5	411	8.3		441708
		321	0.2		441709
TOTAL	95.1ac				

Note: Total and individual FLUCFCS acreage are approximate and calculated from available GIS coverage data. Additional information will be gathered on specific parcels, prior to initiating enhancement activities, to determine limits of enhancement.

Table NEB 6-c
NEB #6
Habitat Enhancement Parcels in Non-Disturbed Areas
Located within the Fort Green Southern Reserves (25-Year Permit) Boundary

	Total Acreage	Land Use	Acres	Wetland No.	UP No.
Parcel #20 Selected Parcel	6.9	411	6.9	N/A	N/A
Parcel #22 Selected Parcel	24.6	411	24.6	N/A	N/A
Parcel #23 Selected Parcel	20.4	411	20.4	N/A	N/A
TOTAL	51.9ac				

Note: Total and individual FLUCFCS acreage are approximate and calculated from available GIS coverage data. Additional information will be gathered on specific parcels, prior to initiating enhancement activities, to determine limits of enhancement.

NEB #7

Title: Donation of Additional Lands to Hardee County to Expand Hardee Park.

Abstract: IMC proposes to donate an additional 28.2 acres of reclaimed improved pastureland that lies adjacent to Hardee Park to Hardee County to permit expansion/development of Park facilities (*e.g*., entrance, parking, buildings).

Total Area/Location: A total of 28.2 acres will be deeded to Hardee County, all of which lies in Section 12 & 13, Township 33 south, Range 23 east (see Figure NEB 7&8).

Project Description: IMC proposes to donate an additional 28.2 acres of land to Hardee County to expand the recently-named Hardee Park. This land is in addition to the 1,260-acre Hardee Lakes project donated to the County in 2000. These 28.2 acres are of significance in that they consist of improved pasture that can be used for development of park facilities. This would preclude the need to impact the reclaimed or undisturbed natural systems for the siting of park facilities.

Basis for NEB Determination: This action is pro-active and not required by any regulatory requirements.

The basis for designating this land donation as a NEB is that the remainder of Hardee Park consists of reclaimed or undisturbed natural systems. Consequently, development of public facilities at the park could otherwise require conversion of some natural systems for buildings, entrance roads, and other typical park infrastructure. This donation provides the opportunity to minimize environmental impacts by siting the park infrastructure on lands reclaimed as improved pasture.

Proposed Land Use Designation: As the landowner, the Hardee County Commission will manage this property as part of the County's land use plan.

Proposed Protection Mechanism: Protection, *per se*, will not be required; however, transfer of the deed to Hardee County will ensure that this benefit accrues to the public.

Timeline/Schedule: IMC anticipates that the transfer of ownership will occur within 6 months of the start of mining on the Ona tract.

Monitoring Plan: None required.

Site Map: Please refer to Figure NEB 7 & 8.

NEB #8

Title: Donation of Undisturbed Payne Creek Floodplain Forest Wetlands to Hardee County That Lie east of Hardee Park With Conservation Easement .

Abstract: IMC proposes to grant a perpetual Conservation Easement to FDEP (or SWFWMD) and to title/deed property to Hardee County on about 76 acres in Section 12, Township 33 south, Range 23 east located immediately east of Hardee Park. These lands have not been mined and consist of mature forested wetlands that lie on the northeast side of the Payne Creek floodplain.

Total Area/Location: The total area addressed in the donation and Conservation Easement will be 76 acres.

Project Description: Figure NEB 7& 8 show that IMC did not disturb this 76 acres in Section 12, Township 33 South, Range 23 East that lie adjacent to the Payne Creek floodplain. IMC proposes to grant a perpetual Conservation Easement to FDEP (or SWFWMD) to ensure maintenance of these lands as forested wetlands and to deed the property to Hardee County to allow expansion of Hardee Park to include additional wetlands habitat. IMC anticipates this portion of the park to be used for passive recreation and that no permanent structures would be constructed on these lands. The net environmental benefit consists of providing permanent protection of forested wetlands contiguous to the Payne Creek floodplain.

Basis for NEB Determination: This NEB constitutes a pro-active step by IMC to preserve undisturbed wetland habitat.

Proposed Protection Mechanism: See the attached Conservation Easement.

Monitoring for Compliance: FDEP or SWFWMD shall have the right to inspect the property for the purpose of monitoring compliance with the terms of the Conservation Easement. Enforcement of any non-compliance issues would be governed by the arbitration provisions of the easement and Section 704.06, Florida Statutes.

Timeline/Schedule: IMC anticipates that the transfer of ownership will occur within 6 months of the start of mining on the Ona tract.

Monitoring Plan: None required.

Site Map: Please refer to Figure NEB 7 & 8.

NEB #9

TITLE: Areas of Conservation Interest - No Mining Disturbance

Abstract: In consideration of the natural systems sub-group's expressed concern for certain areas of conservation interest IMC has agreed not to disturb several large areas on the Ona Mine.
Total Area/Location: These areas are shown on Figure NEB 9, and consist of approximately 2,228 acres of varied habitats.

Project Description: In working with the Ecosystem Management Team (EMT) natural systems sub-group, several areas were identified as being of conservation interest. Most of these areas are mixed uplands/wetland systems which were originally considered for mining. IMC considered the exclusion of these areas as one of the major NEB's that is a result of the EMT permitting process.

Following is a summary of areas that will not be disturbed by mining activities on the Ona Mine:

Horse Creek 100 yr. Floodplain	357 ac.
Brushy Creek 25 yr. Floodplain	1,571 ac.
In-accessible areas	41 ac.
Habitat Areas/Other	2,856 ac.
Total	4,825 ac

The 2,856 acres of uplands that are being excluded from the mining area is well above the normal exclusion that would be considered in the permitting process. This 4,825 acres is a major concession for IMC, in that based upon a site average of 7,000 tons per acre, amount to about 20 million tons of product (or 3.5 years production). Of the total 4,825 acres undisturbed area, 2,856 acres would normally be considered for mining, which is 14% of the total site. This area contains about 20 million tons of product, which is worth over $700,000,000 (seven hundred million dollars) - again, a major concession on IMC's part.

Basis for NEB Determination: By agreeing to avoid disturbance of these areas, IMC has proposed a development scenario that protects habitat for a variety of listed species both observed or potentially present on the property. Included in this total is over 500 acres of pine flatwoods, or 37 percent of the total currently present onsite, and over 540 acres of palmetto prairies, or 19 percent of the total currently present onsite, neither of which are protected from mining or other disturbance by State regulatory requirements. These large areas provide habitat for gopher tortoise and commensals, indigo snakes, and wetlands that are interspersed among the flatwoods and palmetto prairies provide roosting and nesting sites for listed wading bird species. In Dr. Reed Bowman's opinion, these additional 1,000-plus acres offer the opportunity to develop red-cockaded woodpecker habitat. Thus, this pro-active commitment is considered a NEB due to the degree IMC's impact avoidance has resulted in ecosystem protection. FDEP under 62C-16, DCA rules, nor County Comprehensive Plan or Mining Ordinance have no provision requiring this level of habitat protection.

Proposed Land Use designation: These areas are designated as No Mining Disturbance.

Proposed Protection Mechanism: Some of these areas will also be protected by Conservation Easements (see NEB's 1, 2, 4, & 5).

Timeline/Schedule: Conservation Easements for NEB 1, 2, 4, & 5 will become effective and recorded in the Public Records of Hardee County, Florida within six months after the commencement of mining on the Ona tract. Conservation Easements on lands that are scheduled for mining and reclamation will become effective and recorded

within six months after the "release" of all Ona lands from any and all local, state or federally imposed reclamation or mitigation requirements. On all other lands the period of specific protection afforded under the issued ERP and Hardee County Development Order starts when the permits are approved, and last until mining and reclamation are completed on or after the year 2030.

Monitoring Plan: The monitoring of this condition will be through the routine agency inspection and annual report process.

Site Map: See attached Figure NEB 9 for the locations.

NEB #10

TITLE: Protection Of Listed Plants Through Relocation.

Abstract: IMC will provide the opportunity for third parties to relocate listed plants from areas proposed for disturbance to onsite or offsite protected areas.

Total Area/Location: Areas on the Ona Mine site that are to be disturbed.

Project Description: The natural areas of the Ona Mine contain several listed plant species. Ms. Arlene Flisik of the Manatee County Audubon Society requested consideration of a program for IMC to relocate, or to allow a third party such as the Florida Native Plant Society, access to the site to recover listed plants and relocate them to other areas, on site or offsite, in an appropriate nature preserve for their continued propagation and viability. All listed plants will be eligible for relocation, though primarily the most abundant species are ferns and bromeliads (air plants). Specific relocation sites are species-dependent and will be determined on a case-by-case basis.

IMC will incorporate the notification to third parties (Native Plant Society, *etc*.) that pre-register and qualify with IMC for listed species relocation. Notification of anticipated clearing prior to mining will occur on an annual basis with quarterly updates. This will allow third parties ample time to arrange for site investigations and specimen collection. In addition, IMC may use some of the plants in the reclamation, as appropriate. This NEB is structured to provide the flexibility that will be needed to address changing conditions, specifically updates to state and Federal rules concerning relocation of listed plants and health and safety issues within the mine boundaries.

The following pre-qualification will be required for all third party entities:
1. Obtain proper permits from state authorities.
2. Obtain proper safety training and equipment (this will be an active mine site under Federal Mine Safety and Health Administration rules).
3. Have proper insurance and/or sign liability releases.
4. Have appropriate recipient site (approved by both IMC, appropriate regulatory agencies, and County)
5. Demonstrate knowledge and ability to for successful relocation.
6. Ability to conduct the relocation in timely manner.

Basis for NEB Determination: IMC is under no obligation to relocate listed plant species from areas that will be disturbed within the Ona Mine. Current regulations relating to listed plants do not restrict land owners from impacting listed plants on their land. Current rules restrict collecting plants on private or public lands. Notification to interested and qualified third parties, notification of projected annual clearing activities, submission of quarterly updates, and subsequent collection, relocation, and transplanting of listed species on the Ona Site is beyond requirements of current federal, state, or local permits or Development Orders.

Proposed Land Use designation: Not applicable

Proposed Protection Mechanism: Relocation of listed plants to appropriate nature preserves, many of which may be included in the proposed Perpetual Conservation Easement Areas (see NEBs 1 through 5).

Timeline/Schedule: This will occur during the mine life, prior to land clearing for the mining. Notification of projected annual clearing with quarterly updates will be provided to qualified third party entities.

Monitoring Plan: The can be addressed in an annual report.

Site Map: Map G-3 in the AI shows the known locations of listed plants.

NEB #11

TITLE: Restoration of a Segment of Six Mile Creek

Abstract: IMC, in conjunction with the FDEP Bureau of Mine Reclamation's Non-Mandatory Reclamation Program, proposes to restore a segment of Six-Mile Creek in the Noralyn NW Plant Area.

Total Area/Location: This NEB encompasses 144 acres within the Noralyn NW Plant Area in Sections 24 & 25, Township 30 south, Range 24 east, Polk County. These lands include approximately 0.8 miles of Six Mile Creek, 16 percent of its total length, and lands that are or will be reclaimed to natural systems and non-floodplain wetlands.

Project Description: IMC will contribute an additional $45,000 to enhance the restoration of this portion of Six Mile Creek to a more natural stream system. Although a portion of this project will be restored through non-mandatory reclamation program funding, these funds this will not be sufficient to complete the needed work. Thus, IMC is offering to contribute additional funds to complete restoration of lands that are partially reclaimed.

IMC proposes to apply for Non-Mandatory Reclamation Program funding for this project Details of the stream enhancement will be provided in that application. A federal dredge and fill permit will be required to modify the existing ditch system.

Basis for NEB Determination: IMC will voluntarily provide additional funds, beyond those provided by current non-mandatory reclamation program funding, to increase the quality of reclamation of a portion of Six Mile Creek. The reclamation planned would be above that normally achieved through the non-mandatory program. This additional reclamation effort will include grading lower slope elevations, and upland and wetland vegetative planting at greater density and diversity.

Proposed Land Use Designation: Upland and wetland stream systems.

Proposed Protection Mechanism: The non-mandatory land reclamation program requires that the land remain in its reclaimed form for 5 years following completion of re-vegetation. Following, the lands would be wetlands protected by federal, state, and local development permitting processes.

Timeline/Schedule: Submittal of a state note-mandatory lands reclamation program will be occur within two years of the commencement of mining on the Ona Tract. Completion of grading and re-vegetation will occur within the following two years.

Monitoring Plan: The site is inspected by State officials within a year of re-vegetation to confirm conformance with the plan, planting densities and survival.

Site Map: Please refer to Figure NEB 11.

NEB #12

TITLE: Cabbage and Needle Palm Relocation.

Abstract: Prior to mining each area within the Ona Mine, selected cabbage palms (*Sabal palmetto*) and needle palms (*Rhapidophyllum hystrix*) would be transplanted from all permitted mine areas to appropriate locations within the Ona Mine or other IMC reclamation sites.

Total Area/Location: The Ona Mine site is the donor site. Areas reclaimed or to remain undisturbed within the Ona Mine and other IMC reclamation sites are potential recipient sites.

Project Description: Cabbage palms with six (6) feet or more of clear trunk (defined as trunk between the soil surface and the base of the lower most green frond) and needle palms will be transplanted to reclamation or preservation areas within the Ona Mine or other IMC reclamation sites. Due to the slow growing nature of these species, the maturity of these relocations/transplants will prove an immediate environmental benefit to these recipient sites. In addition, open field areas (FLUCFCS 210 & 320) will be planted with scattered cabbage palms along the fringe to create habitat for Audubon's crested caracara.

Basis for NEB Determination: IMC is under no obligation to transplant these species other than as a pro-active measure. No law or legal authority requires the transplanting or preservation of these plant species.

Proposed Land Use Designation: Not applicable.

Proposed Protection Mechanism: Some palms may be planted in areas that are protected by the Conservation Easement in place for other NEB's (see NEBs 1 through 5).

Timeline/Schedule: Location and identification of transplant candidates will be implemented as part of the pre-clearing survey process through the life of the mining operation. Relocation will be conducted as part of the clearing and mine preparation phase, when access by heavy equipment will be feasible.

Monitoring Plan: Monitoring of relocation and species survival will be part of scheduled Bureau of Mine Reclamation inspections.

Site Map: Map I-2 indicates post reclamation land use within the Ona Mine. Relocation will be within undisturbed floodplain wetlands for needle palms, and various upland and transitional wetland reclamation sites for cabbage palms. Relocation may also be to various other IMC reclamation sites, outside the Ona Mine.

NEB #13

TITLE: Amphibian Relocation Research Project.

Abstract: IMC will provide $30,000 to conduct or fund a research project that will compare and categorize amphibian use of reclaimed and unmined reference wetlands in the same region. The proposed project will determine the following: 1) whether any specific benefit would accrue from relocation efforts, 2) if so, to what extent and including which species, and 3) propose a relocation methodology. The study plan will be developed in conjunction with the Florida Fish and Wildlife Conservation Commission (FFWCC).

Total Area/Location: The study area will be on IMC property and comprised of various reclaimed and undisturbed reference wetlands.

Project Description: IMC proposes to conduct or fund limited research to determine the extent of amphibian populations within various types and ages of reclaimed wetlands. A draft of the study plan will be presented to a selected peer review team prior to implementation. This research will be conducted on IMC property during the spring, summer, and winter seasons to best quantify amphibian use in reclaimed wetlands. Data on amphibian use also will be collected in unmined reference wetlands located in the general vicinity of the reclaimed wetlands Research scope may possibly include determination of amphibian presence utilizing vocalization surveys during appropriate seasons and limited dip netting for non-vocal species or life stages (tadpoles).

Basis for NEB Determination: IMC is under no obligation by state regulations to conduct or fund research projects.

Proposed Land Use Designation: Reclaimed and unmined wetlands on IMC property..

Proposed Protection Mechanism: Not applicable.

Timeline/Schedule: Within six months of the start of mining on the Ona Tract IMC will present a draft study plan to a selected peer review team. It is anticipated that surveys will be conducted for one year in the winter, spring and summer seasons.

Monitoring Plan: The progress of this work can be reported in the annual reports to BMR and the County, (which is copied to all other appropriate agencies).

Site Map: Not applicable at this time. Site map can be provided following peer review of the research scope.

NEB #14

TITLE: Florida Burrowing Owl (*Speotyto cunicularia*) Relocation Research Project.

Abstract: IMC will provide $30,000 to conduct or fund a research project that will determine the feasibility of Florida burrowing owl relocation to reclaimed lands. The proposed project will determine if, or to what extent, relocation should be conducted. The study plan will be developed in conjunction with the Florida Fish and Wildlife Conservation Commission (FFWCC).

Total Area/Location: A study area will be developed, presented and approved by a selected peer review team in conjunction with the Florida Fish and Wildlife Conservation Commission.

Project Description: IMC will conduct or fund research that will determine if relocation of the Florida burrowing owl can be conducted successfully. At the request of FFWCC, owls will be relocated from areas to be mined to suitable reclaimed areas. To our knowledge, Florida burrowing owls have not been relocated before. Available research indicates that the western burrowing owl specie has been successfully relocated. Mr. Tony Steffer of Horner Environmental Professionals, an expert in raptor ecology, was contacted and agrees that some type of project can be developed. He also has the necessary state and federal permits required for the capture and banding of the Florida Burrowing Owl. A relocation permit will be obtained from the FFWCC and all potential recipient sites will be approved by the FFWCC. Possible research approaches could include the capture of Florida burrowing owls from non-active nesting areas and banded for future reference. Starter burrows and T-perches may be established in the recipient reclaimed site. Research will continue on reclaimed areas adjacent to occupied burrowing owl areas to determine if re-colonization on reclaimed lands is occurring naturally.

Basis for NEB Determination: IMC is under no obligation by state regulations to undertake or fund research projects relating to relocation of burrowing owls.

Proposed Land Use Designation: Suitable upland habitats will be approved by FFWCC as recipient sites.

Proposed Protection Mechanism: Burrowing owls are protected by the U.S. Fish & Wildlife Service as a migratory species and as a species of special concern by the FFWCC.

Timeline/Schedule: Within six months of the start of mining on the Ona tract IMC will present a draft study plan to a selected peer review team. Surveys to evaluate the success of the project will be conducted for a minimum of one year following relocation.

Monitoring Plan: The progress of this work can be reported in the annual reports to the County, (which is copied to all other appropriate agencies).

Site Map: Not applicable at this time. Site map can be provided following peer review of the research scope.

NEB #15

TITLE: Restoration of Some Historic Water Flow And Hydrology in the Peace River System.

Abstract: IMC proposes to restore some historic water flow and hydrology in the Peace River system by reclaiming the mined area with more natural, less disturbed, upland and wetland communities than currently exist in some locations of the Ona Tract. Much of the site has significantly altered hydrology due to historic land clearing and extensive ditching.

Total Area/Location: Areas proposed for mining and subsequent reclamation are considered potential benefits to the overall hydrology of the Peace River system. There are currently about 73 acres of artificial/excavated ditches on site. If an average width of 20 feet is applied, the result would be approximately 30 miles of ditches. A single ditch or a network of drainage swales will effectively alter the hydrology of an area, sometimes adversely effecting adjacent wetlands.

Project Description: IMC proposes to mine and reclaim all ditches, shown on Map F-2, to more natural wetland and upland communities. Following reclamation it is anticipated that the site hydrology will return to conditions similar to that of historic flows.

Basis for NEB Determination: The Ecosystems Management Agreement (Exhibit B) deemed the restoration of some historic hydrology of the Peace River System sufficient to qualify as a NEB. IMC has demonstrated that this NEB will be realized through the mining and reclamation process.

Proposed Land Use Designation: Land use will vary; please refer to Maps I-2 and J-2 for reclamation flow paths.

Proposed Protection Mechanism: Protection will provided by mine permits and current land development regulations.

Timeline/Schedule: The plan will be implemented upon permit approval and completed throughout the reclamation process.

Monitoring Plan: The progress of this work can be reported in the annual reports to the County, (which is copied to all other appropriate agencies through routine agency inspections.

Site Map: The location of the existing ditches are shown on Maps F-1 & F-2. The location of the reclamation flow paths are shown on Maps I-2 and J-2.

NEB #16

TITLE: Holistic Focus on Ecosystem

Abstract: The Ecosystem Management Team (EMT) permitting process allowed the focus to expand to the regional outlook of the project, and how all resources within the region will be affected.

Total Area/Location: The area is the entire central Florida region.

Project Description: In assessing the regional resources, the work groups obtained and looked at all available data from the region, including but not limited to:

1. FDEP Integrated Habitat Network (IHN)
2. Florida Greenway (University of Florida Geo-plan) Greenways Model
3. Florida Greenway (University of Florida Geo-plan) Conservation Lands
4. Natural Area Inventory - Areas of Conservation Interest
5. TNC - Ecological Resource Conservation Areas
6. FFWCC "Closing the Gap" Strategic Habitat Conservation Areas
2. SWFWMD - Core Habitat and Linkages
3. SWFWMD - Natural Habitat Corridor Model
4. SWFWMD - Save our Rivers

This information was related to the project site and used in assessing the site impacts.

Basis For NEB Determination: Normal DRI review concentrates at the specific property and land within ½ mile radius of the site. In the review process of the Ona Mine, entire drainage basins are included in the base study. SWFWMD data was analyzed using GIS to integrate and overlay many levels of data.

Proposed Land Use designation: Not applicable.

Proposed Protection Mechanism: The holistic focus and information synthesized in the process facilitated the groups ability to identify areas that were of conservation interest and subsequently requested not to be mined. Many of these areas are currently proposed for protection under granted Conservation Easements.

Timeline/Schedule: The evaluation process was ongoing during the meetings of the Ecosystems Management Team.

Monitoring Plan: Not applicable

Site Map: Figure NEB-16 shows the various agencies regional resources areas. The darker the color, the more agencies have mapped the area as having importance.

NEB #17

TITLE: Formalized, Early and Continuing Public Participation.

Abstract: Public participation is an integral and significant part of this EMT process. This allows for a variety of perspectives and interests to be considered during the planning phase, promoting a better review of all environmental aspects of the project, and ultimately allows for a better overall project. In addition, but not separately claimed as a NEB, IMC provided a significantly more detail in information submittals than is typically provided in typical mine permitting applications.

Total Area/Location: The entire mine site, and surrounding areas.

Project Description: Public participation is a significant part of the process. IMC and FDEP retained the assistance of the Florida Conflict Resolution Consortium (CRC) as an neutral third party to be a facilitation for interaction among IMC, the agencies and the public. The EMT process was developed to include many opportunities for the public to be involved through scheduled public meetings, public information forums, mailings, a phone message center, and an Internet Web site.

The public participation has allowed for a broader base of review, not just from agency personnel, but also peer review from the general public. This produces better review of numerous environmental aspects of the project, and ultimately resulted in a better overall project.

Basis For NEB Determination: In the standard DRI and other permitting process, public participation does not occur until the end of the review period when the applications are publicly-noticed, or hearings are scheduled before the RPC and County Commission(s). At that point in the process, it is very difficult to go back and make revisions, and requires renegotiations with multiple individual agencies. The EMT process, however, allows public input to be considered at a juncture in the process when meaningful changes can be implemented. The cost to IMC in providing the support of CRC, securing adequate meeting facilities, meals, copies of the information, and staff and consultant's time has been significant.

Proposed Land Use designation: Not Applicable

Proposed Protection Mechanism: Not Applicable

Timeline/Schedule: The public participation was initiated at the very inception of the EMT process and is expected to continue throughout the project. The public will have access to the annual reports, and agency files to continue their involvement throughout the mine development.

Monitoring Plan: Not Applicable

Site Map: Not Applicable

NEB #18

TITLE: Improvement of Recreational Opportunities.

Abstract: Hardee County lacks natural lakes, and County representatives have expressed an interest in lake construction. The reclamation plan has been amended specifically to include the creation of additional lakes, which may provide potential for future recreation usage.

Total Area/Location: The reclamation plan includes the formation of about 1,345 acres of open water in about eight (8) separate lakes.

Project Description: Per the request of the work group(s), most of the lakes will be placed in the south and east sides of the Ona Mine site. This locates the lakes close to existing highway access, hence reducing the need to impact sensitive habits.

IMC makes no commitment to provide future public access to these lands. However, it can be assumed that these areas have potential value for future recreation and development. Future land owners will act accordingly to maintain the land. During mining and reclamation activities, the land will remain closed to public access to comply with safety regulations.

This is primarily a public interest aspect, and has only minor NEB potential.

Standard Process Comparison: There are no requirements for creation of lakes, or for locating them based on public access areas.

Basis For NEB Determination: Upon completion and release of the reclamation, it would be appropriate for Hardee County to reassess the land use designation in the Hardee Comprehensive Plan. This would facilitate the development of the lands for public access. Therefore, by incorporating lakes into the overall mine reclamation plan, the potential for recreational opportunities is realized.

Proposed Protection Mechanism: Not applicable.

Timeline/Schedule: Recreational opportunities will improved at the time the proposed reclamation plan is approved.
Monitoring Plan: Not applicable.

Site Map: The location of the proposed lakes are shown on Map I-2.

NEB #19

TITLE: Archaeological Survey Upgrade in Mississippi Chemical Tract Area.

Abstract: IMC proposes to conduct an archaeological resurvey areas of high or medium probability to determine that all significant sites have been located. A copy of this and any other applicable survey results will be forwarded to the area Historical Society for access by the public.

Total Area/Location: Map D-3 indicates the location of the re-survey.

Project Description: IMC proposes to resurvey areas currently requested for mining that were included in the original 1975 archaeological survey. To locate any potentially significant sites, the predictive model by SEARCH, using test pits on a 50 meter spacing was utilized. Areas of high or medium probability are being re-surveyed. If archaeological material is encountered, the test pit spacing will be reduced appropriately to determine the site limits.

The original site survey, performed by Milanich, Marrinan & Martinez (report dated December 10, 1975), was completed in accordance to the standards applicable at that time. The Florida Division of Historic Resources issued approval of the survey on February 11, 1981 (copy included at the end of Question 24). The one site considered potentially significant was excavated by Piper Archaeology in 1982, and determined to not be significant. Based on this, IMC has fulfilled the required archaeological surveys for this area. However, members of the EMT are concerned that the methods used in the original survey do not meet the current standard, and that the original survey may have overlooked some archaeological resources. Details of these differences are summarized in the status report by SEARCH located in Appendix 24A-2. The primary differences are:

1. Lack of a systematic layout of testing pits, as compared to today's standard array at 25 or 50 meter spacing.
2. Testing pits dug to a depth of 0.5 meters, as compared to today's standard of 1.0 meter depth.
3. Materials from the test pits were screened on a ½ inch mesh screen, as compared to the current standard 1/4 inch screen.
4. Knowledge of significance sites in the interior part of Florida has been greatly advanced during the interim, and the predictive models for site probability has greatly improved.

Based on the work done in phosphate mine areas over the last 20 years, IMC does not expect to locate additional significant sites. The predictive model shows very few high probability areas within the original survey area, as compared to the area along Horse Creek that was surveyed by SEARCH in 1999. SEARCH found many sites, although none were considered significant.

Basis For NEB Determination: The current approvals by the Florida Division of Historic Resources grant IMC full right to develop the land without additional survey. The resurvey of this area is strictly voluntary and exceeds IMC's responsibility and requirement to obtain approval to mine the area.

Proposed Land Use designation: Does not apply

Proposed Protection Mechanism: Does not apply

Timeline/Schedule: This work has been done.

Monitoring Plan: Reporting of the survey and any required follow up actions will be provided to the EMT Archaeological work group, and/or reported in the annual report (see Introduction in Tab 24).

Site Map: See Map D-3

APPENDIX G
NOTICE OF INTENT

conservation, water quality, energy needs, health, economics, historic properties, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people, and other issues identified through scoping, public involvement, and interagency coordination.

Scoping: Public meetings have been conducted since mid-1998 under the Ecosystem Management/Team Permitting process established in sections 403.075 and 403.0752, Florida Statutes. Issues raised by public participants in the Team Permitting process will be incorporated into the scoping process. At this time, there are no plans for a public scoping meeting. Alternatives noted above are considered to be the primary areas of review at this time, although affected federal, state and local governments and governmental agencies, affected Indian tribes and other interested private organizations and parties are strongly encouraged to support additional alternatives for consideration and otherwise submit comments on the scope of the DEIS.

Public Involvement: We invite the participation of affected federal, state and local agencies, affected Indian tribes, and other interested private organizations and parties by submitting written comments to the information contact provided in this notice.

Coordination: The proposed action is being coordinated with the U.S. Fish and Wildlife (FWS) and the National Marine Fisheries Service under Section 7 of the Endangered Species Act, with the FWS under the Fish and Wildlife Coordination Act, and with the following State of Florida agencies: State Historic Preservation Officer, Fish & Wildlife Conservation Commission, Department of Environmental Protection, Bureau of Mine Reclamation.

Other Environmental Review and Consultation: The proposed action would involve application (to the State of Florida) for Water Quality Certification pursuant to Section 401 of the Clean Water Act, and certification of State lands, easements, and rights of way.

DEIS Preparation: It is estimated that the DEIS will be available to the public on or about February 28, 2001.

Dated: August 1, 2000.

John R. Hall,

Chief, Regulatory Division.

[FR Doc. 00–20570 Filed 8–11–00; 8:45 am]

BILLING CODE 3710–AJ–M

DEPARTMENT OF DEFENSE

Department of the Army, Corps of Engineers

Intent To Prepare a Draft Environmental Impact Statement (DEIS) for a Dredge and Fill Permit Application for the IMC Phosphate Company's (IMC) Proposed Ona Mine Project in Hardee County, Florida

AGENCY: U.S. Army Corps of Engineers, Department of Defense.

ACTION: Notice of intent.

SUMMARY: Pursuant to section 404 of the Clean Water Act, the U.S. Army Corps of Engineers has regulatory authority to permit the discharge of dredge and fill material into wetlands and other waters of the United States. In compliance with its responsibilities under the National Environmental Policy Act (NEPA) of 1969, the Jacksonville District, U.S. Army Corps of Engineers intends to prepare a DEIS as a result of the dredge and fill permit application for the IMC Ona Mine Project.

FOR FURTHER INFORMATION CONTACT: Ronald H. Silver, (904) 232–2502, West Permits Branch, Regulatory Division, P.O. Box 4970, Jacksonville, Florida 32232–0019.

SUPPLEMENTARY INFORMATION: IMC proposes to construct and operate a surface mine for the recovery of phosphate rock from its 20,595-acre property in western Hardee County near the rural community of Ona, Florida. Phosphate rock is the source of the element phosphorous, which is essential to life and for which there is no substitute. Phosphate rock recovered from the Ona Mine will be shipped to manufacturers who convert it to concentrated fertilizers used in high-yield agriculture.

The project proposed by IMC envisions that initially, only mining and reclamation will occur on the Ona property, with beneficiation and shipment of the phosphate rock occurring at the existing IMC's beneficiation plant at the Fort Green Mine in Polk and Hardee Counties. At a later date, which is as yet undetermined, a beneficiation plant consisting of a washer, a flotation plant, product inventory, a shipping facility, and miscellaneous support facilities will be constructed at the proposed plant site, and the portion of the Ona Mine's phosphate reserve which has not been mined at that time will be processed at the new plant. There will be no chemical plant, gypsum stack or rock dryer at the Ona Mine site.

Over many decades, significant portions of the Ona Mine property have been converted to agricultural use, chiefly as improved pasture. The natural ecosystems on most of these agricultural lands have been degraded or improved for agricultural activities. IMC proposes to mine these areas and to reclaim them to an appropriate blend of agricultural and habitat values. However, there are also some areas of less disturbance, which have the significant ecological value. Of these, IMC proposes not to mine about 4,900 acres of ecologically significant area, or approximately 24 percent of the gross acreage of the Ona Mine property.

IMC intends to use the ''opencast'' variant of surface mining as its standard technique for development of the Southeast Tract, wherein large electrically-powered excavators (''draglines'') first remove and set aside the soils overlying the ore (''overburden''), and then excavate the phosphate ore (''matrix'').

The matrix is placed by the dragline into a shallow depression at the ground surface, where the matrix is disaggregated and converted to a slurry by mixing it with water. The matrix slurry is transported by electrically powered pumps through pipelines to the beneficiation facility, where the phosphate rock is separated from the sand and clay with which it is found in the ore. The sand and clay are returned to the mine for use in reclamation, again by pipelines as slurries.

Three distinct methods of reclamation will be used in creation of the post-reclamation landscape. These are known as: (1) The sand fill with overburden cap method, (2) the shaped overburden method, and (3) the crustal development methods for reclamation of clay settling areas.

Alternatives: Alternatives considered include no action, mining a portion of the area only-based on identification of critical concerns, important natural resources, and sensitive ecological areas; in addition, alternatives will take into consideration: mining method, matrix transport, matrix processing, waste sand and clay disposal, process water sources, water management plan, reclamation, and wetland preservation. Various alternatives are available to satisfy the objectives of each of these components. Other alternatives that might be identified under the scoping process will also be addressed.

Issues: The EIS will consider impacts on protected species, health, conservation, economics, aesthetics, general environmental concerns, wetlands (and other aquatic resources), historic properties, fish and wildlife

values, flood hazards, floodplain values, land use, navigation, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people, and other issues identified through scoping, public involvement and interagency coordination.

Scoping: Public meetings have been conducted since early 1998 as part of the Ecosystem Management Permitting System as provided in Chapter 403.075, Florida Statutes. The process was facilitated by the Conflict Resolution Consortium of Florida State University and implemented by the Ecosystem Management Team made up of representatives of permitting entities, and by the Public Work Group composed of representatives of non-permitting government agencies, conservation and public interest groups, and unaffiliated interested parties. The issues raised by public participants at these meetings will be incorporated into the scoping process. At this time, there are no plans for a public scoping meeting. However, all parties are invited to participate in the scoping process by identifying concerns, issues, studies needed, alternatives, procedures, and other matters related to the scoping process and forwarding them to the information contact provided in this notice.

Public Involvement: We invite the participation of affected federal, state and local agencies, affected Indian tribes, and other interested private organizations and parties by submitting written comments to the information contact provided in this notice.

Coordination: The proposed action is being coordinated with the U.S. Fish and Wildlife (FWS) and the National Marine Fisheries Services under Section 7 of the Endangered Species Act, with the FWS under the Fish and Wildlife Coordination Act, and with the following State of Florida agencies: State Historic Preservation Officer, Fish & Wildlife Conservation Commission, Department of Environmental Protection, Bureau of Mine Reclamation.

Other Environmental Review and Consultation: The proposed action would involve application (to the State of Florida) for Water Quality Certification pursuant to Section 401 of the Clean Water Act, and certification of State lands, easements, and rights of way.

DEIS Preparation: It is estimated that the DEIS will be available to the public on or about January 31, 2001.

Dated: August 1, 2000.

John R. Hall,

Chief, Regulatory Division.

[FR Doc. 00–20571 Filed 8–11–00; 8:45 am]

BILLING CODE 3710–AJ–M

DEPARTMENT OF EDUCATION

Privacy Act of 1974; Computer Matching Program

AGENCY: Department of Education.

ACTION: Notice of computer matching between the U.S. Department of Education and the U.S. Postal Service.

SUMMARY: Pursuant to the Computer Matching and Privacy Protection Act of 1988 and the Office of Management and Budget (OMB) Guidelines on the Conduct of Matching Programs, a notice is hereby given of the computer matching program between the U.S. Department of Education (ED) and the U.S. Postal Service (USPS). The following notice represents the approval of a new computer matching agreement by the ED and USPS Data Integrity Boards to implement the matching program on the effective date as indicated in paragraph E of this notice.

In accordance with the Privacy Act of 1974, as amended by the Computer Matching and Privacy Protection Act of 1988, the Office of Management and Budget (OMB) Final Guidelines on the Conduct of Matching Programs (see 54 FR 25818, June 19, 1989), and OMB Circular A–130, the following information is provided:

A. Participating Agencies

The USPS is the recipient agency and will perform the computer match with debtor records provided by ED, the source agency in this matching program.

B. Purposes of the Matching Program

This matching program will compare USPS payroll and ED delinquent debtor files for the purposes of identifying postal employees who may owe delinquent debts to the federal government under programs administered by the ED. The pay of an employee identified and verified as a delinquent debtor may be offset under the provisions of the Debt Collection Act of 1982 (Pub. L. 97–365) when voluntary payment is not made.

C. Legal Authorities Authorizing Operation of the Match

This matching program will be undertaken under the authority of the Debt Collection Act of 1982 (Pub. L. 97–365) which authorizes federal agencies to offset a federal employee's salary as a means of satisfying delinquent debts owed to the United States.

D. Categories of Individuals Involved and Identification of Records Used

The following systems of records, maintained by the participant agencies under the Privacy Act of 1974 (5 U.S.C. 552a), as amended by the Computer Matching and Privacy Protection Act of 1988 (Pub. L. 100–503), will be used to disclose records for this matching program:

1. USPS' ''Finance Records—Payroll System, USPS 050–020,'' containing records for approximately 800,000 employees. (Disclosure will be made pursuant to routine use No. 24 of USPS 050–020, which last appeared in the **Federal Register** on December 4, 1992 (57 FR 57515).)

2. ED's ''Title IV Program Files'' (18–11–05), containing debt records for approximately 3,000,000 borrowers. (A notice of this system was last published in the **Federal Register** on June 4, 1999 (64 FR 30106).)

E. Beginning and Ending Dates of the Matching Program

The matching program will become effective 40 days after a copy of the agreement, as approved by the Data Integrity Board of each agency, is sent to Congress and the Office of Management and Budget, or 30 days after publication of this notice in the **Federal Register**, whichever date is later. The matching program will continue for 18 months after the effective date. The agreement may be extended for one additional year beyond that period, if within 90 days prior to the actual expiration date of the matching agreement, the Data Integrity Boards of both the USPS and ED find that the computer matching program will be conducted without change and each party certifies that the matching program has been conducted in compliance with the matching agreement.

F. Address for Receipt of Comments and Inquiries

If you wish to comment on this matching program or obtain additional information about the program including a copy of the computer matching agreement between ED and USPS, contact John R. Adams, U.S. Department of Education, 400 Maryland Avenue, SW., room 5114 ROB–3, Washington, DC 20202–5320. Telephone: (202) 205–5311. If you use a telecommunications device for the deaf (TDD), you may call the Federal Information Relay Service (FIRS) at 1–800–877–8339.

Appendix H

List of Individuals and Organizations Receiving the Draft EIS (October 2002)

COMMENTERS

	LAST	FIRST	AGENCY	ADDRESS	PHONE/EMAIL ADDRESS
1	Alderson	Edna		23053 Westchester Blvd, Apt G304, Punta Gorda, FL 33980-8478	-
2	Banister	Beverly	EPA, Region 4, Water Management Division	Sam Nunn Atlanta Federal Center, 61 Forsyth Street, SW, Atlanta, GA 30303-3104	404-562-9407
3	Mueller	Heinz	EPA, Region 4, Office of Environmental Assessment		
4	Cox	Bill	EPA, Region 4, Wetlands Section		
5	Berghoef	Gerard	Grove City Civic Association	Send Priority Mail: P.O. Box 5201, Grove City, FL 34224	gaberghoef@yahoo.com
6	*Cook	Perry	Lemon Bay Conservancy, Inc.	For Fed-Ex use, 5048 Bella Terra Drive, Venice, FL 34293	for Fed-Ex use, 941-492-4346
	*Bossman	Brenda		Office Address: P.O. Box 508, Englewood, FL 34295-0508	office ph: 941-475-9021
	*address package to Cook & Bossman (send only 1 copy of draft document)				
7	Brandt	Gary D.	Rotonda West Association, Inc.	3754 Cape Haze Drive, Rotonda West, FL 33947	941-697-6788
8	Briggs	Doris J.	City of North Port, City Clerk	5650 North Port Blvd, North Port, FL 34287-3103	941-426-8484
9	Brown	Sandra H.	Glades County Board of County Commissioners (BCC)	599 Avenue J, Moore Haven, FL 33471	863-946-0949
10	*Burr	David Y.	Southwest Florida Regional Planning Council	4980 Bayline Drive, North Ft. Meyers, FL 33917-3909	
	*Cummings	Adam			941-656-7720
	*address package to Burr and Cummings (send only 1 copy of draft document)				
11	Cantrell	Richard	Charlotte Harbor National Estuary Program	4980 Bayline Drive, 4th Floor, North Ft. Meyers, FL 33917	941-995-1777
12	Carey	Rachelle M.		628 W. Olympia Avenue, Punta Gorda, FL 33950	-
13	Coy	Dr. Willard A.	West Charlotte County Civic Assoc, Inc.	1990 Illinois Avenue, Englewood, FL 34224	-
14	De Hayes	Gerald F.		134 Colonial Street S.E., Port Charlotte, FL 33952	941-466-7437
15	DeLucia	Bernadette		13622 Allamanda Circle, Port Charlotte, FL 33981	941-697-0475
16	DeLucia	Paula		230 SW Clark Street, Apt C104, Issaquah, WA 98027	-
17	Dick	Sarah & Richard		23053 Westchester Blvd, Apt G402, Port Charlotte, FL 33980	941-766-0112
18	Elliott	Nancy		24367 Buccaneer Blvd, Punta Gorda, FL 33955	-
19	Flisik	Arlene	Manatee County Audubon Society	4106 24th Avenue West, Brandenton, FL 34205	941-746-1991
20	Gee	W. Philip		23033 Westchester Blvd, Port Charlotte, FL 33980	bgmlepg@sunline.net
21	Greeley	Richard		1490 NW Magnolia Terrace, Arcadia, FL 34266-3652	863-494-1457
22	Hawkinson	Ellen		5053 Janus Avenue, North Port, FL 34286	941-426-0123
23	Horton	Mac V.	Charlotte County BCC	18500 Murdock Circle, Port Charlotte, FL 33948-1094	941-743-1300
24	Hull	Victor	Sarasota Herald-Tribune c/o News Room	801 S. Tamiami Trail, Sarasota, FL 34236	941-957-5171
25	*Keller	Clarke V.	Peace River Audubon Society	35380 Washington Loop Rd, Punta Gorda, FL 33982	941-505-2300
	*Ayech	Becky			
	*address package to Keller and Ayech (send only 1 copy of draft document)				

Appendix H

List of Individuals and Organizations Receiving the Draft EIS (October 2002)

	LAST	FIRST	AGENCY	ADDRESS	PHONE/EMAIL ADDRESS
26	Kerslager	George		1322 San Mateo Drive, Punta Gorda, FL 33950	941-575-8349
27	Kiskaddon	Robert M.		708 Macedonia Drive, Punta Gorda, FL 33950	941-639-2292
28	Knight	Doug	Hardee County Mining Coordinator c/o Hardee County BCC	Courthouse Annex, Room A204, 412 West Orange St, Wauchula, FL 33873	863-773-0136
29	Lehman	Patrick J.	Peace River/Manasota Regional Water Supply Authority	1645 Barber Road, Suite A, Sarasota, FL 34240	941-316-1776
30	Lueptow	Lloyd		2308 Deborah Drive, Punta Gorda, FL 33950	941-505-0351
31	McClash	Joe	Manatee County BCC	1112 Manatee Avenue, Suite 903, Bradenton, FL 34205	941-745-3790
32	Meredith	Harry & Marcia		28498 Silver Palm Drive, Punta Gorda, FL 33982	941-255-0659
33	Miller	Dan	U.S. Congress, 13th district	House of Rep., 102 Cannon House Office Building, Washington, D.C. 20515-0913	202-225-5015
34	Moncrief	Aliki	Earthjustice Legal Defense Fund	111 S. Martin Luther King, Jr. Blvd, Tallahassee, FL 32301	850-681-0031
35	Moore	Marie P.		23053 Westchester Blvd, Apt R311, Pt. Charlotte, FL 33980-8430	-
36	Moore	Mr. & Mrs. E.W.		23053 Westchester Blvd, Apt L402, Port Charlotte, FL 33980-8475	-
37	Morch	Mr. & Mrs. John			johnmorch@peoplepc.com
38	Pederson	Robert	Manatee County Planning Department	1112 Manatee Avenue, 4th Floor, Bradenton, FL 34205	941-749-3070
39	Pfeiffer	George		620 Francine Lane, Venice, FL 34292	941-484-4749
40	Pilon	Raymond	Sarasota County BCC	1660 Ringling Blvd, Sarasota, FL 34236	941-951-5397
41	Powers	Frank M.		1077 NW Eucalyptus Avenue, Arcadia, FL 34266	863-494-1679
42	*Rains	Gloria	Manasota 88	5314 Bay State Road, Palmetto, FL 34221	
	*Compton	Glenn			941-722-7413
	*address package to Rains and Compton (send only 1 copy of draft document)				
43	Romero	Dr. Sandi & Dale		4673 NW Royal Palm Drive, Arcadia, FL 34266	-
44	Ross	Rona		330 Pineapple Avenue South, Suite 110, Sarasota, FL 34236	941-954-6050
45	Ross	Don		2579 Toledo Blade Blvd, North Port, FL 34286	941-740-2911
46	Sawyer	Susan & Jack		350 Sorrento Court, Punta Gorda, FL 33950	941-575-9807
47	Scott	Olivia		26073 Anceida Drive, Punta Gorda, FL 33983	-
48	Seeley	C.	Native Plant Society/C.L.E.A.N.	1312 Corktree Circle, Port Charlotte, FL 33952	-
49	Smith	Janet		1709 Pelican Cove Road, GL 446, Sarasota, FL 34231	-
50	Sommer	Howard & Sarah		8310 Manasota Key Road, Englewood, FL 34223	-
51	Sowers	Frances C.		402 Madrid Blvd, Punta Gorda, FL 33950	941-575-5929
52	Spencer	Donna H.	Town Hall, Longboat Key	501 Bay Isles Road, Longboat Key, FL 34228-3196	941-316-1999
53	Staber	Edward & Kathryn		2309 Breman Court, Punta Gorda, FL 33983	-
54	Stallings	Emmett	Save the Manatee Club	9835 Delaware Street, Bonita Springs, FL 34135	941-992-7832

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	LAST	FIRST	AGENCY	ADDRESS	PHONE/EMAIL ADDRESS
55	Strahl	Stuart	Audubon of Florida, Everglades Conservation Office	444 Brickell Avenue, Suite 850, Miami, FL 33131	305-371-6399
56	*Tarika	Virginia	League of Women Voters of Sarasota County, Inc.	3575 Webber Street, #105, Sarasota, FL 34239-4930	941-921-9778
	*Slocum	Jean			
	*address package to Tarika and Slocum (send only 1 copy of draft document)				
57	Weller	Jeff	U.S. Fish & Wildlife Service, South Florida Office	1339 20th Street, Vero Beach, Florida 32960	772-562-3909 ext. 237
58	Wiley	Marie & Paul		23053 Westchester Blvd, Apt R102, Port Charlotte, FL 33980	panagram@home.com
59	Zeman	Ron & Viki		469 Santa Julian Court, Punta Gorda, FL 33983	-
60	Thompson	Mark	National Marine Fisheries Service, Habitat Conservation Division	3500 Delwood Beach Road, Panama City, FL 32408	850-234-5061
61	Bullock	Karl	Golder Associates Inc.	6241 NW 23rd Street, Suite 500, Gainesville, FL 32653	352-336-5600
62	Pandorf	Warren		2951 Chancery Lane, Clearwater, FL 33759	727-793-0020

LIBRARY

63	Hardee County Public Library	ATTN: Diane Hunt, Director	315 North 6th Avenue, Suite 114, Wauchula, FL 33873	863-773-6438
64	Manatee County Central Library	ATTN: John Vanberkel	1301 Barcarrota Blvd, Brandenton, FL 34205	941-748-5555
65	Selby Public Library	ATTN: Susan Mason, Reference Dept	1331 First Street, Sarastoa, FL 34238	941-316-1181
66	DeSoto County Library	ATTN: Reference Department	125 North Hillsborough Avenue, Arcadia, FL 34266	863-993-1181
67	Charlotte Glades Library System - Charlotte County	ATTN: Mary Ellen Fuller	18400 Murdock Circle, Port Charlotte, FL 33948	941-743-1461
68	Brandon Regional Library	ATTN: Virginia Zurflieh	619 Vonderburg Drive, Brandon, FL 33511	813-744-5630
69	Fort Meade Public Library	ATTN: Kay Jackson	75 East Broadway, Fort Meade, FL 33841	863-285-8287
70	Fort Meyers-Lee County Public Library	ATTN: Reference Department	2050 Central Avenue, Fort Meyers, FL 33901	239-479-4635
71	Sebring Library	ATTN: Reference Department	319 W. Center Avenue, Sebring, FL 33870	863-402-6716

ADDITIONAL RECIPIENTS

(Send 6 copies)
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